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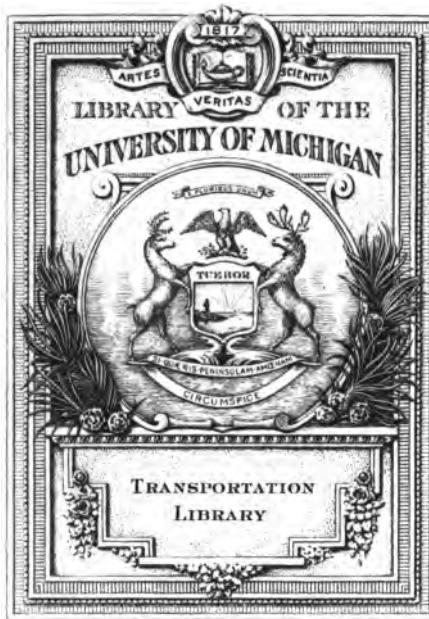
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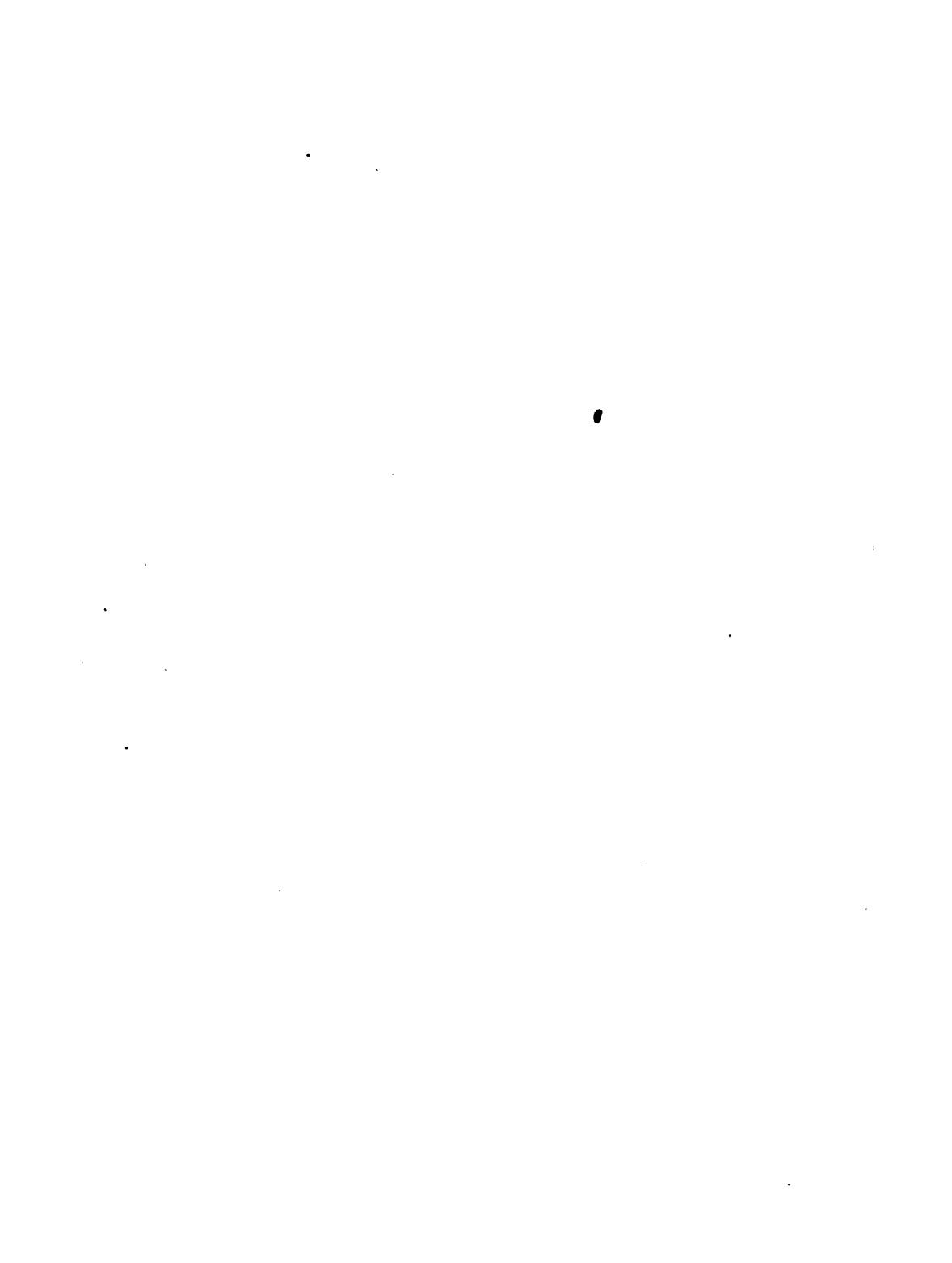
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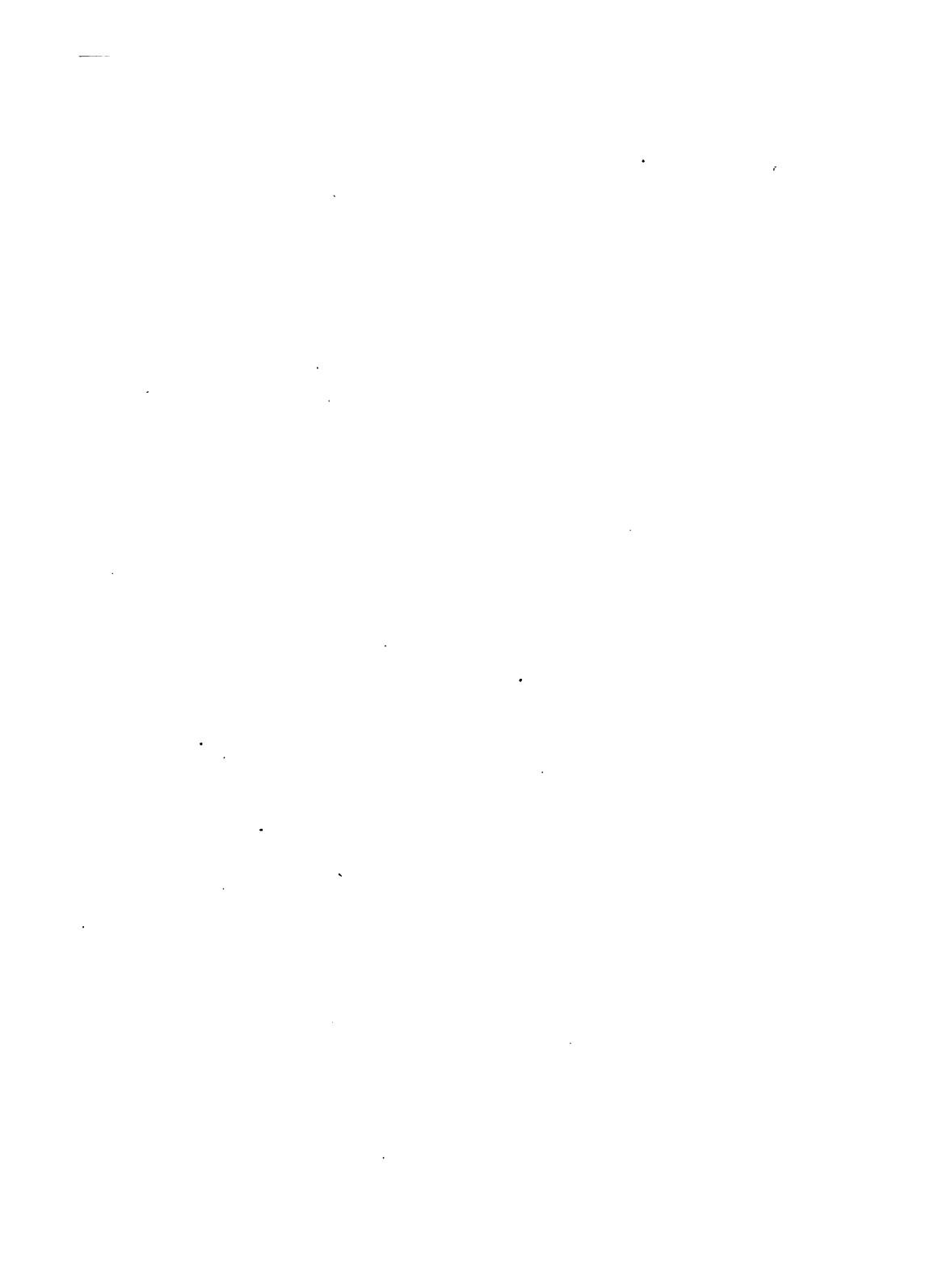


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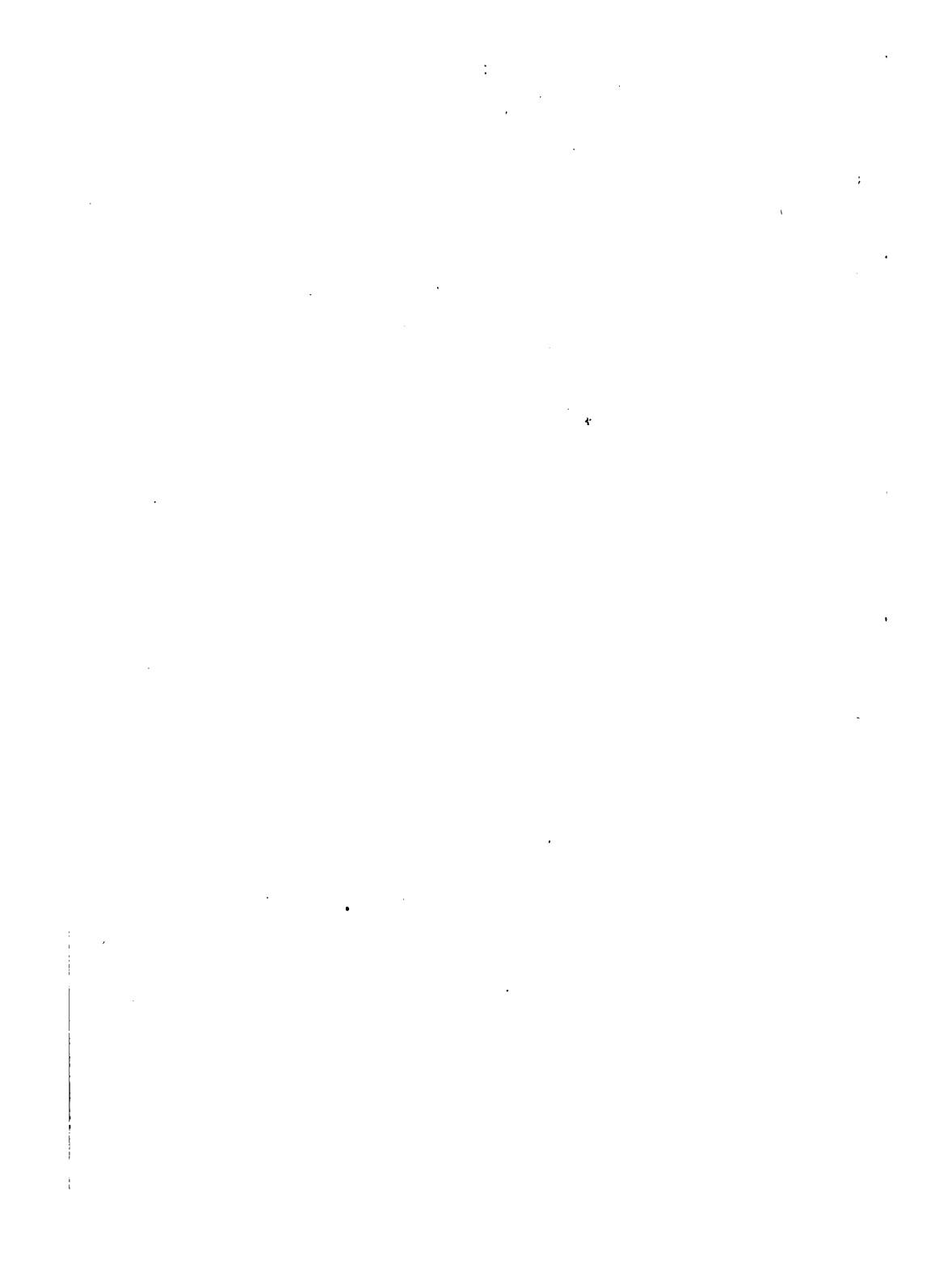
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HUMAN NATURE AND RAILROADS



Human Nature and Railroads

By
IVY L. LEE
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INTRODUCTION

American railroads are without a rudder. They know not whither they are going, and they are unable to determine their course. They only know they are in a storm and that their bearings are lost.

Is it not possible that a better recognition by all sides of the human aspects of the situation might remove many of the doubts and fears which beset railroad pilots, as well as quell something of the storm which rages about their heads?

The railroad problem is a very human problem; it is a problem that concerns us above all else as human beings. What is a railroad for? It is to take people or things from one place to another. Why? Simply to advance the material interests of human beings. Railroads are built by human beings; they are run by human beings; they are regulated by beings who are very human; and they serve human beings. Make a mistake in your treatment of the railroad question and you injure human beings. Handle it properly and you help human beings.

The great problem is to establish the point of contact, to make the railroad manager, the employe, and the public in their mutual relations understand one another's point of view.

The public is reasonable; it knows the impossible cannot be performed.

The man who works for wages is fair; he wants to earn an honest day's pay, and he knows he can't be paid more than his work earns.

But the public doesn't understand the railroad manager. It has come into contact with some railroad men it doesn't approve of, and it doesn't discriminate.

If the public can see the railroad man of to-day as he is, burdened, weighted down, it would feel very differently toward him.

These pages grew out of an effort to establish some point of contact between the public and the human beings who really constitute the railroad.

These were talks to audiences, usually of business men. They make no pretense at literary finish or as representing a well-rounded and comprehensive treatment of the railroad problem as a whole.

These addresses, for the most part, were delivered as Executive Assistant of the Pennsylvania Railroad. They have not been edited by the management of that company, however, and I am alone responsible for the opinions expressed. The general considerations presented apply to all railroads.

IVY L. LEE.

Ardmore, Pennsylvania, May 1, 1915.

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I.

HUMAN NATURE AND RAILROADS

The railroad business up until recently has been very largely conducted as though it were a house without any windows, somewhat like the Bank of England, mute and inscrutable. The crowd on the streets outside has meanwhile been very suspicious of what was going on in that building, and wondering, even threatening.

With reference to this subject, railroad men to-day can be roughly classified in four categories:

1. Those who believe that the crowd on the outside has no right to see what is going on on the inside, and that there is no reason why there should be any windows in that building.

2. There is another class who have no objections to windows being in the building, but think that even if the people could see what was going on inside, they would not be in the least more favorably inclined in their attitude toward the business.

3. There is a third class who believe it would be a good thing if the public could look in and see what was going on, but they do not believe there is any feasible method of making the public do the looking.

4. And there is a fourth class who believe in the windows, who believe in the public, and who are making

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The Crowd
Enthroned

great progress toward a better understanding on the part of those both inside and outside the building.

With reference to the first class, I do not doubt but that the logic of events will be more than persuasive. The people now rule. We have substituted for the divine right of kings, the divine right of the multitude. The crowd is enthroned. This new sovereign has his courtiers, who flatter and caress precisely as did those who surrounded mediæval emperors. These courtiers are sedulously cultivating the doctrine that to be weak is to be good, and that to be strong is to be bad. The demagogue is abroad in the land, and there are omens that cannot be disregarded.

The railroads are in the midst of a swirling flood of legislation and regulation—most of it punitive and restrictive, little of it constructive and statesmanlike. Last year in 42 State Legislatures 1395 bills regulating railroads were introduced and 230 became law.

Why?

Because the American people have become imbued with certain ideas concerning our railroads, ideas which have a deeply sinister meaning, ideas which have supplied fuel for a flame these courtiers of his majesty the crowd have delighted to keep burning.

One of the main reasons we are in the midst of this vortex is that we have failed to take account as railroad men of certain fundamental currents of human

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nature, which, from time immemorial, have been made the most of by men who have influenced the action of crowds. Railroad men have been standing aside, content to be judged by the machines they were running, not attempting to have themselves regarded as human beings, not making it known that railroads were but composites of human nature. Machines haven't the necessary red blood to arouse multitudes.

The railroad business and the standard of railroad conduct are very much like, and have always been very much like, those in every other kind of business. Railroad morality has responded to the general morality of the public, and railroad men have been neither worse nor better than the average run of people at any time.

But somehow or other the public has come to have the idea that three essential evils are imbedded in the railroad business:

1. The first is that there is a vast amount of watered stock on which dividends are being paid. Now, Is Watered Stock Immoral? there is no essential immorality in the existence of watered stock. It is, after all, a mere question of policy as to whether dividends should be permitted to be earned on watered stock. The difference in the effect of watered stock on different publics may be seen in the respective attitudes toward watered stock in this country and in England. In England the Board of Trade reports that

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the capital obligations of all British railroads is about \$6,675,000,000, and the official returns expressly state that nearly one billion, or about 15 per cent., is "nominal" capital or "water"; and yet in none of the published discussions regarding the railroad problem in England do you observe sinister reference to the "watered" stock.

There is no doubt that the present federal valuation scheme in this country, which is to be so very expensive, would never have been undertaken if it had not been for the very firm belief on the part of the public that dividends were being paid on watered stock.

Are
Railroads
Ruled
by Wall
Street?

2. In the second place, there is a widespread feeling that the railroads are ruled from Wall Street, that a small coterie of bankers in alliance with the so-called "money trust" are absorbing huge profits from the people. I do not think you would ever have had two-cent-fare laws if it had not been for this widespread sentiment. The people in the States felt that by such laws they could retain for the public in their own districts a portion of the profits which were being absorbed by the absentee owners.

I have an idea the public is to-day persuaded that the railroads are underpaid for carrying the mail, yet acquiesces deliberately in a continuance of a recognized injustice in itself because the people believe, and a large number of Congressmen believe, that by restricting the

HUMAN NATURE AND RAILROADS

payment for mail they may save to the people some of the undue profits they feel are earned through other railroad operations by these absentee owners.

3. There is a third idea abroad: That the railroads through their combinations of capital and management exercise undue power over the welfare of the people. A most astounding document was presented to Congress on May 15th, by the chairman of the House Committee on Interstate Commerce. Must we not take serious notice when the chairman of one of the most important committees, representing the dominant party in Congress, pronounces a doctrine so amazingly unsound as this:

Is there
"Undue
Power"?

"The most vicious thing about all combinations in transportation and all other kinds of business is that while it multiplies the benefits of the few men retained, it dispenses with the services of so many both competent to fill the positions and entitled to the fair emoluments thereof."

On March 29th Mr. Clifford Thorne, chairman of the Iowa Railroad Commission, who, no matter what we may think of his views, undeniably represents a large body of public sentiment, made this statement with reference to newspaper reports of railroad economies:

"The discharge of 40,000 men simply proves the

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colossal power of a few men that can throw 40,000 poor families out of the means of daily sustenance."

I believe you will agree with me that these thoughts are in the minds of a large percentage of our population. That such notions are full of error is no matter; they are there, and it is because of their existence that the very foundations of railroad prosperity in this country are being undermined.

The Railroads Are Sound

That there has been some reason for some of these popular ideas, no one can deny. But I know and you know that 999 men out of 1000 in the railroad business are doing their work as well, if not better, than 999 men out of 1000 in any other occupation that we know anything about. The railroad business is to-day as honestly and efficiently conducted as any business in the world.

We have built up in this country a railroad system which is the envy of every country in the world. We have the lowest capital per mile; we pay the highest wages; we pay the highest taxes in proportion to investment; and with all that we carry our goods for the lowest rate of freight of any railroad system in the world.

It is perfectly obvious that any institution which has developed to that state of efficiency and ability must be fundamentally honest and well conducted. Yet we read in the papers and we ourselves are dismayed by reports

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of graft and dishonesty and violations of trusteeship on the part of railroad officers.

The public jumps to the conclusion, from these few instances, that because here and there there is dishonesty, therefore the whole railroad business is rotten and ought to be condemned; that every railroad man is deserving of reproach.

I had a most remarkable illustration of the public mind on this subject a few days ago. I wrote a letter to the head of the school of finance and business administration of a large university. I told him I wanted to get one of their best men to put on the railroad. He wrote back: "I have been talking with a number of the more intelligent graduates and I find that the average man does not feel any inclination to go into the railroad business to-day." That reflects something of the state of public mind in this country with reference to railroads.

It is just as logical as would be the state of mind if the people believed that every man in this country was bad because they read every day of divorce suits and things of that kind. The papers don't print the fact that most people are living together in peace; they print about the dishonesty and the bad faith.

Public
Thoughts
About
Railroads

Why is it then that the good in the railroads has been hidden, and the bad magnified and distorted out of all proportion? It is because railroad men have

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neglected the human nature of the situation; it is because loud-tongued politicians dilated upon the evils while railroad men sat still, attended to their job, and said nothing of the good; it is because railroad men have not insisted, in and out of season, and produced the facts to prove it, that, no matter what fly-specks might be pointed out on the wall, the structure itself was safe and solid, and something to be proud of.

The Public Acts Upon Impulse

From the beginning of history, popular leaders have taken account of the fact that the people in the mass act upon impulses. Such leaders have not been disposed to exaggerate the influence of reason in determining the acts of mankind at large. If railroad men then are to assume the place to which they are entitled as leaders of the public, they must consider these same elements in the psychology of the multitude.

These elements may be briefly described as follows:

1. In the first place, crowds do not reason. It is impossible to induce a crowd to proceed toward any proposition on logical premises. John C. Calhoun proved beyond dispute, as a matter of pure reasoning, that the Southern States had a right to secede, but Wendell Phillips came along and preached the doctrine that the slaves should be freed, and that the Union must be preserved. It would have been a logical thing to pay the Southern people for their slaves, but we all

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know that it was not possible to deal with the problem in that way. You were dealing with crowds.

2. Again, crowds are led by symbols and phrases. Joseph Chamberlain, when he was advocating the Boer War, achieved his purpose when he dubbed those opposed to him as "Little Englanders." We know that Bryan, through the creation of that extraordinary phrase, "You shall not crucify mankind on a cross of gold," did more to advance the free silver cause than all of the other subtle and logical efforts that were ever made to advocate that idea.

3. Success in dealing with crowds, that success we have got to attain if we are to solve the railroad question, rests upon the art of getting believed in. We know that Henry VIII, by his obsequious deference to the forms of law, was able to get the English people to believe in him so completely that he was able to do almost anything with them. At the present time the German Empire has, as I see it, the most despotic government and yet the most progressive and the most contented people in Europe, for the reason that the Emperor of Germany is absolutely believed in by his people. So he may do anything he desires, and the people are glad to have him do it. Does any one question that Mr. Roosevelt's supreme influence while he was President was due to the fact that the American people absolutely believed in him, believed in the purity

Railroads
Must Get
Believed In

HUMAN NATURE AND RAILROADS

of his motives and the elevation of his patriotism? Believing in him as they did, they paid no attention to his blunders or to criticisms of him.

Problem
to Provide
Leaders

4. The problem of influencing the people en masse is that of providing leaders who can fertilize the imagination and organize the will of crowds. Moses painted a picture of the promised land, and he induced the Israelites to spend forty years of extraordinary hardship under his leadership. Cæsar drew a picture of the conquest of Gaul, and so infused the imagination of the Roman populace that they thrice offered him a crown. Napoleon's uncanny power in France was due to his resourcefulness in the appeal to these same elementary crowd-impulses.

These are some of the mainsprings of crowd stimulation. They are factors which statesmen, preachers and soldiers have from time immemorial recognized when they sought to lead peoples. My point is that in working out the railroad problem we must take account of these same principles of crowd psychology.

We must, for example, replace with sound phrases and symbols those symbolic words, symbolic terms and phrases that have gotten into the public mind and created a false impression. We have heard a great deal about "full crew" laws. The labor people were very happy in their selection of that term "full crew." Now, if we had referred to that from the beginning as the

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"extra crew" it seems to me we would have made considerably more headway than we did.

The phrase, "What the traffic will bear," has done as much to hurt the railroads as any expression ever used. It is scientifically correct, no doubt, but it conveys a most unfortunate suggestion to the popular mind—the thought that the rate is "*all* the traffic will bear," a suggestion absolutely contrary to the fact.

We can never be too careful in the terms we use. Importance
of Words Sometime ago, a certain public service corporation was in great financial difficulties; it could not pay its bond interest. Its skillful president induced its bondholders to agree to a reduction of the rate of interest on the bonds. The president then announced to the public that there was to be "a readjustment" of the finances of the company. Now "readjustment of finances" is so much better than saying, "Your company is bankrupt," and no one ever suggested that his company was bankrupt. It was a matter of terms, and we must be careful of the terms we allow to be lodged in the public mind. There is often talk of "educating the public." Now, railroad officers themselves are getting a good deal of very helpful "education." It is not a question of "educating the public;" it is a very real question for the railroad man of understanding the public and having the public understand him.

What we say to the public, it seems to me, must be

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with reference to its effect, and not primarily with reference to its logical sequence. You cannot argue with the public. To illustrate, Mr. Roosevelt in his speeches gives us holes through which one can drive a coach and four. Mr. Bryan doesn't reason, but he moves multitudes powerfully. Such men, and quite legitimately, say what they have to say with a view to its effect, the emotional effect upon the imagination of the people they are seeking to reach.

Railroads
Must
Appeal
Constructively

Again, I would suggest there is no gain in pointing out the logical inconsistencies of other people's statements or arguments, however erroneous they may be. If we cannot answer what they say with something that will appeal constructively to the imagination or emotion of the public, with something which will supplant the erroneous statements, it is hardly worth while to go into the case at all. We may say what has been said of man, that a crowd convinced against its will "is of the same opinion still."

A public to be influenced must feel. Too many railroad announcements are full of cold legal phraseology; they leave the public unmoved. Mr. Brandeis said three years ago that "the railroads could save a million dollars a day." Mr. Brandeis didn't mean that literally, but he knew it would illuminate the public imagination. And he was right in that.

To make the public feel, we must be concrete; we

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must tell of our work in language the layman can understand. He will not analyze figures. What he wants to know is, are you doing the best you can? Convince him of that, and you don't need to argue details.

With reference to the claim that the railroads are owned in Wall Street: There is no better way to answer that suggestion than to show to the public the number of shareholders railroads have; how they are increasing and the number of women among them; the number of life insurance companies and trustees. That is a statement of fact, of pertinent truth, that produces an effect upon the people's imagination and emotions. It tells its own story, it supplies its own inference; and that is the big point in dealing with such a matter.

Little facts so often carry a convincing thought to the public mind. The public is disposed to take little incidents and to talk about them, and from these small incidents judge the whole. For instance, last winter the general manager of one railroad sent out a brief notice to track foremen telling them that the track workers ought, on account of the cold, to have ear mufflers, but that they should certainly be warned most carefully when trains were approaching.

It is but a part of the day's routine work to send out such a notice, but the publication of that in the newspapers creates the idea in the public mind that the railroad is taking extremely good care of its men

Importance
of Little
Facts

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—which is a fact—and one little thought of this sort that the public can grasp is more important than a great many very carefully reasoned arguments.

This necessity to be concrete argues against the establishment of any general railroad publicity bureau. Each railroad should tell its own story to its own constituency. No set of statistics, no generalization as to facts concerning the railroads as a whole, however convincing, will ever find lodgment in the public mind. But the concrete story of how each railroad is performing its obligations to its own community will always be of interest.

Dealing
with the
Press

And it is here that we must deal with the press. It seems to me we should regard the press simply as the window glass of this house in which, as I conceive it, we have cut out the space for the windows. It is the glass through which the public can see what we are doing. That glass should be clear; it should not color; it should not distort. Therefore, we should make an effort to see to it that what the press publishes about us consists not merely of complimentary notices about our roads and about our officers, but real facts of consequence. We should see to it that in all matters the public learns the truth, but we should take special pains to emphasize those facts which show that we are doing our job as best we can, and which will create the idea that we should be believed in. We must get so

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many good facts, so many illuminating facts, before the public that they will not magnify the bad. There will always be some bad facts in every business, as long as human nature is frail.

Do not misunderstand me. Nothing is further from my thoughts than to suggest any attempt to prove things are good which are really bad. No one should condone the bad, and it should be, as I believe it is, the constant aim of nearly every railroad man to make things better. What I do mean is that we should not neglect the human nature of the situation, but should make the most of it; that we should tell our story, tell it frankly, tell it fully, and tell it with a view to its being understood and carrying conviction as to the essential truth.

Unless the railroad men of the country are to get believed in, so that the public will take their advice as to what it should do with reference to railroads, we are not going to make very much headway in the settlement of the railroad problem. The railroad officers of this country deserve public confidence, and they must command it.

Yet, look at the extraordinary situation which now prevails. Railroad managers are representatives of one-eighth of the tangible wealth of the United States, and yet not a single man with experience in railroad management is on the Interstate Commerce Commiss-

Railroads
Must
Command
Confidence

HUMAN NATURE AND RAILROADS

sion; none is on any of the State Commissions. A delegation of railroad presidents goes to the Governor of New Jersey, telling him that the passage of the extra crew law is unnecessary and will be a hardship upon the railroads; yet almost before they are out of the capitol building the bill is signed. Why is it? There can be but one reason, and that is that the railroad managers are not believed in by the public.

If we are going to work out this problem properly we have got to be believed in. We have got to get imbedded in the public mind what is in all truth the supreme fact of the situation, namely, that the railroad men are doing their work as best they can and doing it in the main exceedingly well, doing it better than the railroad business is being done in any other country on the globe. Whenever the public gets that fact into its mind it will give the railroad men opportunity to go ahead full steam.

The crowd craves leadership. If it does not get intelligent leadership, it is going to take fallacious leadership. We know that the leadership which the mob has often received not only in this country but in other countries, unless corrected, is liable to produce disastrous consequences. Is it not supremely worth while, therefore, that railroad officers should take account of those fundamental undercurrents of human nature, take practical steps to obtain the confidence of the

HUMAN NATURE AND RAILROADS

public, and assume the leadership which by right of character and ability they are entitled to exercise?

Men utilize skill to produce emotion and opinion in favor of reform and against the wrong; why should not the same process be utilized on behalf of constructive undertakings, on behalf of ideas and principles which do not tear down but really build up?

To the American youth the locomotive was and still is the symbol of adventure, of enterprise, of power. Why should it not continue to be? And why should not the men who direct these locomotives be among the chief directing agencies of our progress as a people? Railroad managers now see so much error intrenched, they are inclined to falter and give up; but instead of being doubtful fighters in the rear guard, railroad officers should be stalwarts in a new crusade.

Railroad
Managers
Dis-
couraged

Mr. Masterman, one of the leaders of political thought in Great Britain, says that though the civilization of Rome was destroyed by Goths and Vandals from without, he is not sure but that we have in our Western life the seeds of decay which will wreck our civilization from within.

Is it not indeed likely, not only in railroading, but in all industrial lines, not alone in this country, but in all Western nations, where the same problems are pressing, that it will be by men of intelligence and ability, directing through such methods as these the great

HUMAN NATURE AND RAILROADS

movements of the people along lines of health and greatness, that ours may be saved that decadent phase which no civilization has yet escaped?

Railroad
Men
Should
Tell Their
Story

One man out of every twelve in the United States is employed by the railroads. Out of eighty million people in this country some seven million derive their daily bread from the earnings of the railroads. The inter-relations of the railroad men and the people of this country are infinite, and it is our duty to see to it that each one of those men who know about the railroads makes it plain to his neighbor that the railroad business is good, and that he, as an example of the railroad business, is doing his job as he ought to do it.

“We are not here to play, to dream, to drift:
We have hard work to do, and loads to lift.
Shun not the struggle; face it; ‘tis God’s gift.
Say not the days are evil—Who’s to blame?
And fold the hands and acquiesce—O Shame!—
Stand up, speak out, and bravely, in God’s name.”

II.

THE RAILROAD MAN'S BURDEN

The supreme problem of our material life is the problem of distribution. Amazing success has been realized in solving the problem of production: the development of the steam engine, inventions of machinery, and the scientific study of farming have made possible the production of wealth in the factory and on the field with both economy and dispatch.

No such strides have been made toward solving the problems of distribution. The modern world cries out for light to illuminate the way toward the equitable and harmonious distribution of wealth. University extension movements, chautauquas, cheap books and penny newspapers—all attest effort to promote a more widespread distribution of knowledge.

This country of ours, with its 3,027,000 square miles of area, much of it still undeveloped, is striving toward a solution of the great problem of transportation—the distribution of the products and the movement of the peoples. No one can tell what the future of transportation holds in store. We are in the infancy of electrification of railroads. Not long ago an officer of the largest signal manufacturing concern in the country expressed to me the belief that within twenty-five years all railway signals would be conveyed by wireless electricity to the engineman in the cab.

Our
Country
Is Still
Undevel-
oped

HUMAN NATURE AND RAILROADS

Some months ago a man who is probably the greatest expert in this country on railroad electrification delivered an address before a gathering of railroad men in which in fancy he spoke as of one hundred years from now. He said he could look back to the time when all railroads had been electrified; that electrification had subsequently found it possible to perform its function without the use of wires; and that still later all transmitted electricity had been abandoned, and that each train in starting out upon its journey took aboard only a little package of radio-active atoms with a small detonator to liberate violent atomic energy and thus propel the train.

The Future
of Trans-
portation

No man can tell what the future may hold in store in transportation. It has been shown possible to operate a railroad car with perfect safety on a single rail, balance being obtained by the gyroscope. The gyroscope promises to steady ships in the midst of the stormiest of seas and to make aeroplanes undisturbed by the most violent of winds.

All these things the future holds in store for us. But at this moment a much more practical problem demands our attention. The great stretches of territory, our boundless resources, have been largely developed through the building of 250,000 miles of railway. In some parts of the country railroad building

THE RAILROAD MAN'S BURDEN

has approached a condition of high development, but at the moment there is only a relatively small mileage of double-track railroad in this country, and most of that is east of the Allegheny Mountains and north of the city of Washington. There is only one double-track railroad west of the Missouri River, and on that railroad one must go 372 miles from Omaha before reaching Julesburg, the half-way point between New York and San Francisco.

The demand for increased facilities must be met or else the growth of the country will be stultified. With our great distances we have a peculiar problem to meet. Cotton comes from the South; our grain from the West; most of our fruit from Florida and the Pacific Coast. The manufactured products of New England and the coal of Pennsylvania must be moved to where they are needed, quite as much as the sugar from Louisiana and the lumber from North Carolina. The constitutional guaranty of free trade between the States will be of little avail if through error or lack of foresight we make it impossible for the products of the mine, the field, or the factory to move quickly and cheaply to where they may be utilized.

In Germany there is one mile of railroad for every 5.7 square miles of territory; in France, one mile of railroad for 8.5 square miles of territory. In this

Demand
for
Facilities
Must be
Met

HUMAN NATURE AND RAILROADS

country there is one mile of railroad for each 13 square miles of area.

The railroads of this country are capitalized at about \$60,000 a mile, against a capitalization of \$275,000 a mile for the railroads of England, a country in which railroad development is approximately sufficient to meet the needs of a highly populated country.

Our State of Mind Toward Railroads

Nevertheless we find in this country a state of mind toward railroad managements which is manifesting itself in harassing legislation, in burdensome taxation and in a general withdrawal of confidence. The result is to discourage railroad enterprise and hamper railroad improvement.

The whole tendency of things in recent years has been to make it more difficult for railroads to obtain the necessary money with which to meet the obligations and burdens forced upon them.

Mistakes have been made by the railroads in the past. Of that there can be no doubt, and no man should attempt to minimize an evil—either present or past. But we are face to face with a definite problem—a problem which cannot be solved by any orgy of indignation over past wrongs.

There were undoubtedly many evils in the railroad system, some of which caused discrimination and some unfairness, but under that railroad system, with all of its shortcomings, this nation has grown and pros-

THE RAILROAD MAN'S BURDEN

pered. In recent years, however, there has developed a tendency toward seeking relief in legislation. And let us not imagine this disposition is a new one. It is as old as civilization. May I read to you as appropriate a few passages from an essay by Herbert Spencer, published in the *Westminster Review*, July, 1853, more than sixty years ago:

“Though we no longer presume to coerce men for their spiritual good, we still think ourselves called upon to coerce them for their material good; not seeing that the one is as useless and as unwarrantable as the other. Innumerable failures seem, so far, powerless to teach this. Take up a daily paper and you will probably find a leader exposing the corruption, negligence or mismanagement of one of our State Departments. Cast your eyes down the next column and it is not unlikely that you will read proposals for an extension of State supervision. . . .

Herbert
Spencer's
Experience

“Thus, while every day chronicles a failure, there every day reappears the belief that it needs but an Act of Parliament and a staff of officers to effect any end desired. Nowhere is the perennial faith of mankind better seen. Ever since Society existed Disappointment has been preaching: ‘Put not your trust in legislation;’ and yet the trust in legislation seems scarcely diminished.”

We must undoubtedly set out to remove wrong, but

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let us be sure that in preventing wrong we do not also destroy enterprise and initiative and ambition. In order to achieve greatly, men must have before them the possibility of realizing great ambition. The rewards of life must be great if men are to be induced to make the sacrifice, which in most cases will be ineffectual, but which now and then will result in tremendous success.

Dema-
gogues
Always
With Us

Since the beginning of thought, demagogues have offered to lead us by short cut-offs to happiness and delight. But the experience of mankind shows that only through rigorous application of self-sacrifice, toil and unremitting effort can either a man or a people achieve.

In an imperfect world perfection is not instantly attainable. Railroad safety, for instance, cannot be secured by mechanical devices alone. It is primarily a resultant of care and discipline.

Laws to compel railroad managers to make their railroads safe are ineffective unless the money to do it is obtainable. Our people are demanding a perfect railroad system mechanically, but have so far not evinced much enthusiasm in providing the means with which to supply their demands.

What is the answer? We know that we must have railroad facilities. I believe that our people are pretty well convinced that in a Democracy like ours gov-

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ernment ownership of railroads would be a mistake. We must have railroads and we must have them under private management if the best results are to be obtained and the best interests of all the people are to be subserved.

Those of you who have ever attended a prize-fight will remember that uncanny, almost demoniacal shout of delight which arises from the watching crowd when the "mixing" is most furious and a "knockout" is imminent. So, too, we seem to have been hearing sounds indicating the exultation of the unthinking at the plight of the railroads. We read in some of our magazines expressions apparently enthusiastic that now has Daniel come to judgment, that our railroads are but debris, demoralized wrecks of departed confidence, and that Government ownership should be availed of immediately to save our people.

We who listen to these extraordinary outbursts cannot but wonder at the apparent absence of reason and lack of understanding which is thus displayed. So far as we can learn, about the only basis for this strange destructiveness would seem to be the fact that at some time in the past the crowd knew that this railroad champion had sown some "wild oats." For, to drop the metaphor, I feel safe in saying that no business in the United States is to-day conducted with greater regard, not only for the requirements of the law, but for

Why the
Fury
Against
Railroads

HUMAN NATURE AND RAILROADS

the fundamental dictates of honesty and decency, than that line of public service to which railroad officers are devoting themselves.

Let us consider some of the blows which are being aimed at the body of this champion who is, as I conceive it, fighting for public prosperity:

1. The most recent, but none the less serious, of these forces was the flood of last spring, which cost the railroads some \$12,000,000, and which caused a charge of upward of \$4,000,000 against the revenues of the Pennsylvania Lines. This sudden invasion upon our property had to be met out of that surplus which it should be the part of every well-managed railroad to have available, and yet the accumulation of which is made increasingly difficult by the tendency of present-day legislation.

2. Wages are constantly going up. If the Eastern railroads had paid in 1913 the same scale of wages they did in 1910, their payments for this purpose would have been \$48,000,000 less than was actually paid.

All
Railroad
Employees
Deserve
Liberal
Treatment

While believing that railroad employees should be liberally paid, we have an obligation to insure that this equitable treatment shall be meted out to all classes of employees. The effect of some of the wage arbitrations, however, which have recently taken place, has been to create an unwarranted disparity between the wages of different classes of employes by making additions to

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wages already unduly high and rendering difficult, if not impossible, proper treatment for employes as a whole.

3. Not only wages, but also taxes are mounting upward. The taxes for the companies in the northeastern quarter of the United States have increased 111 per cent. in the past ten years. In this manner the railroads not only suffer the brunt of the increasing costs of their own operations, but they must share a large portion of the constantly increasing expenses of our agencies of government.

4. Not alone must these increases in wages and taxes be met, but our railroads are shouldered with a mass of legislation the result of which is to augment the expenses of operation. Extra crew laws loom large in this category. These laws have not only added some \$6,000,000 to the cost of operation in the States which have them, but, worse than that, they have imposed upon the railroads an obligation to employ a large number of men who are not needed for either the safe or the efficient operation of trains.

The Mass
of Anti-
Railroad
Legislation

We have grade crossing laws such as that recently passed in the State of New Jersey, imposing upon the railroad the entire burden of the cost of removing a grade crossing; and yet, if the grade crossings on the Pennsylvania Railroad alone in the State of New Jersey had to be removed at once, the cost would be at least \$60,000,000.

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Let me not be understood as protesting against any of this legislation. All of it may be highly desirable; but that it is expensive and that the expense must be met from some source there certainly can be no question.

Anomalous
Conditions
Surround
Railroads

Faced with the necessity for meeting such expenses, the railroads nevertheless find themselves surrounded by many anomalous conditions which prevent normal treatment of the situation. You will remember that when Gulliver was shipwrecked on the shores of Lilliput, the little inhabitants of that country bound his arms and legs with ligatures which made difficult his freedom of movement. So we find that our railroads have been bound around with certain ligatures which, to return to the figure of the prize-fighter, make it impossible to dodge or to ward off the blows which have caused his dismay. Such ligatures are:

1. The fact that the tribunals which settle the wages which we shall pay to our men are not the same as those which have jurisdiction over the rates we shall charge for our services. If a railroad brings to a commission a statement of its increased payments for wages, there is nothing whatever in law or in logic to prevent such commission from saying that such a schedule of wages is unwarranted, and that upon the general public ought not to be imposed the burden of paying for it.

2. The fact that State Legislatures may enact meas-

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ures imposing increased expenses and yet by reason of the inter-relationship between State and interstate rates, the National Government, through its control over interstate rates, in effect if not in act, prevents an increase of rates to meet the expenses incident to carrying out the legislation of individual States.

3. We are compelled by the Sherman Act to compete; and yet, under the Hepburn Law, in substance forbidden to compete with other railroads. The Hepburn Law, by requiring us to file all rates thirty days before they become effective, practically insures that the rates over all railroads between two points shall be the same. This same law forbids all discrimination by one railroad or a group of railroads against individual shippers, classes of shippers, or communities. The Interstate Commerce Commission has clearly established the principle of the fixity of competitive rates. In its decisions in the two great rate cases of 1910-1911, the Commission distinctly stated that the New York Central Railroad, for example, "must operate its lines in competition with the Pennsylvania Railroad Company, and the rates on both routes must be confessedly the same."

Railroads
Compelled
Both to
Compete
and Not to
Compete

The Commission also recognized that railway rates were fixed in reference to the strong railways rather than the weak ones. Their argument, in refusing to sanction a general rate increase at that time, was in

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effect that the strong roads did not need an increase in rates, and that in consequence the weak roads which did need larger revenues could not increase their rates.

Here was a double blow at the Sherman law. That law, however, remains on the statute books, and Congress has so far refused to relieve railroad companies from its burden. Both President Roosevelt and President Taft recommended its abrogation, but to no avail. Senator Root pointed out some of the anomalies of the situation in these pertinent words:

Senator
Root's
Opinion

"We are moving along toward a situation in which we are compelling agreements. Railroads are compelled to enter into agreements with their employes, not their own employes, but the employes of universal organizations—the railway engineers, the railway trainmen, the railway conductors. These great organizations, which include the employes of all the railroads, acting as bodies, deal with all the railroads. The railroads are compelled to agree with each other, because they are compelled to agree with a common bargainer, representing labor, regarding the most essential and important element affecting their rates.

"We compel railroads to desist from injurious competition. . . . We require that when the subject of differentials arises, these differentials shall be with reference to the rights of different localities and that railroads shall be under restraint in regard to them. . . .

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No railroad acts for itself alone, the rates of no railroad are questions merely between the railroad and its own customers, and the wages paid by no railroad are questions merely between that railroad and its employes, but all of them are bound together. The rates they fix, the wages they pay, the arrangements they make, all are mutually interdependent."

Thus, though competition in all respects save service is effectually prevented, and though we are subjected to the most rigid regulation, the national Congress, in spite of the recommendations of two Presidents of our country, still refuses to permit competing railroads to make legal agreements with one another. The situation of the railroads in this matter may not be inaptly compared to that of the little girl, who, being told to learn to swim, was yet adjured by her mother:

Congress
Refuses to
Recognize
the Facts

"Now go, my darling daughter;
Hang your clothes on a hickory limb,
But don't go near the water."

The natural result of competition is the survival of the strong. And yet, if in practice competition results in the crippling of the weak, the result is not considered desirable. We are told that there should be competition between railways and waterways, and yet if in practice we find that even with their cheaper rates the waterways cannot meet the competition offered by the

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superior service of the railroads, and the waterways in consequence languish, we are told once more that there is something wrong with the character of the competition.

A Typical Railroad Dilemma

4. The railroads are constantly urged to consider business interests, and to adjust their dealings to the commercial needs and habits of the people; and yet they are often compelled by law to do uncommercial things. If a Pittsburgh lumber dealer undertakes a contract, with prices based upon a rate quoted to him by a railroad rate clerk in Pittsburgh, and it is later found, after delivery of the lumber, that the rate was, in the utmost good faith, quoted inaccurately, the legal rate must nevertheless be collected, even if it should mean the bankruptcy of the lumber dealer. This situation has been met in the Pennsylvania Public Utilities Law:^{*} but the anomalous law referred to is still controlling with reference to interstate shipments.

Pressure is continually being exerted urging railroads to pay all claims promptly; and yet there is constant risk that the inadvertent payment of an unwar-

* Article III, Section 7, paragraph (a)—“Where, as the result of a bona fide mistake or error of a common carrier, the full tariff charges are not collected in the first instance, and the balance is subsequently found to be due and outstanding, the collection of such balance may be waived by the carrier, provided the matter is submitted to the commission, and its approval of such waiver is first had and obtained.”

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ranted claim may result in an indictment charging the payment of a rebate.

5. There is a continuing demand for improved passenger service, for both speed and safety in the operation of trains, and for greater comfort and cleanliness in the equipment provided. Yet a large number of States have passed laws restricting passenger fares to a maximum of two cents a mile, with but little consideration given to whether that sum is fair payment for the character of service demanded.

6. We are often between two fires presented by contradictory local demands. There is at many points, for instance, a very strong sentiment that railroads should provide switching from the lines of one company to another at nominal rates. There is at the same time a demand for improved terminals. The point is almost invariably overlooked that if the existing terminals of a railroad are not to be protected against use without full compensation, the very strongest incentive is immediately removed for that carrier to expend additional capital in improving its terminals.

Railroads
Between
Two Fires

7. The railroads are in a strange dilemma with reference to the transportation of the mails. The Supreme Court of the United States has declared that the railroads are not compelled to carry the mails. And yet if they do carry them, they must do so at rates and under rules laid down by act of Congress. No think-

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The
Injustice of
Railway
Mail Pay

ing man will fail to realize immediately that the railroads could not seriously consider refusing to transport the mails. The inconvenience to the public would be so great that no railroad company could assume the responsibility for causing it. If the railroads were compelled by law to carry the mails, and they then found that the rates fixed by Congress were not compensatory, the companies would have some standing before the courts in claiming that their property was being taken without just compensation. But under the law as it stands they must as nominal free agents, in deference to public opinion and public convenience, accept contracts with the Post Office Department to carry the mails upon terms established by Congress. They have no standing before the courts, and their only appeal for adequate payment lies to public opinion.

This is the day of enlightened public opinion, and we are all impressed with the point of view from which all matters of business and social conduct are being regarded. Righteousness is these days receiving an emphasis certainly without precedent in our time, and the government is interposing continually to insure that righteousness shall prevail in the treatment of the people by incorporated capital.

I should like to lay before you, however, a chain of facts in this matter of the compensation paid by the

THE RAILROAD MAN'S BURDEN

Government for carrying the people's mails, and leave with you the question as to whether, in these, are embodied practices comporting with the highest ideals of righteousness.

Our Government instituted the parcel post on January 1, 1913. Notwithstanding the fact that this parcel post was expressly designed to provide a service which would compete with that of the express companies, and that from this express traffic the railroads had received a portion of the revenue, no provision whatever was made to pay the railroads for carrying the burden of this parcel post for the first six months. After the first six months it was provided that the Postmaster General could pay not exceeding 5 per cent. to those railroads upon which the mails had not been weighed between January 1st and July 1st, to compensate them for carrying the parcel post. At the time such provision was made the weight limit of the parcel post was 11 pounds. On August 15th, however, without further provision for compensating the railroads, the weight limit of the parcel post was extended to 20 pounds. Again, with no provision made for the compensation of the railroads for the additional burden which they must carry, the weight limit is on January 1st to be further increased to 50 pounds, without any action before then to pay the railroads for carrying the additional weight. And it was stated in newspaper articles sent

No Pay for
Carrying
the Parcel
Post

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out from Washington a few days ago that the only complaint which had been made against increasing the weight limit of the parcel post came from the railroads!

This situation is described, perhaps, with exaggeration, but vividly, by a narrative I heard recently of a man who wished to forward a small package. He found that the charge for carrying that package by freight would be 25 cents, by express 26 cents, and by parcel post 24 cents. The man reflected that of course the principal portion of the journey which that parcel was to make would be by railroad, and he therefore took occasion to inquire what payment the railroad itself received for carrying that package by each of the respective methods. His conclusions he thus stated:

"I found that in the case of freight the railroads received the whole of the revenue; in the case of the express, they received half of it; and in the case of the parcel post, they received none of it."

Little
Thought
by Post
Office De-
partment
as to
Insuring
Fair
Payment

Public opinion has for many years past seemed to make it popular for post office officials and others to consider only the convenience and immediate purposes of the Department, rather than the question of insuring that fair payment should be made to those carrying the mails.

And, for the present, the fact remains that the mails are being carried without adequate compensation, and the parcel post is adding to the burdens of the railroad

THE RAILROAD MAN'S BURDEN

and at the same time depriving them of a source of revenue which they previously enjoyed, and in return for which they rendered a valuable service. The parcel post is all right, and the people should have it, but any reasonable man will agree that the Government should pay a fair price for the service, and I feel confident that eventually that fair price will be paid.

Those of you who have in recent years been examined for life insurance have noticed that a special apparatus has been applied to ascertain the expansibility of your arteries, to find whether or not there was any tendency in your bodies toward hardening of the arteries, or, as the doctors call it, arterio-sclerosis. To apply the figure to our country: Are we not now receiving a blood pressure test indicating a very definite tendency toward national arterio-sclerosis, or hardening of our great arteries of trade? Our country is growing, vast resources are being developed, immigration is increasing; yet our railroads are standing still.

Our
Railroads
Now
Standing
Still

Can it not be that our country in its handling of the railroad problem has in recent years devoted so much energy to preventing discrimination between shippers and shipping communities that the necessity has been overlooked for conserving those delicate and sensitive factors which contribute so fundamentally to the perfecting and upbuilding of the transportation machine?

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A few verses in Paul's first letter to the Corinthians, Chapter XII, would seem to apply to the situation:

"For as the body is one and hath many members, and all the members of that body being many are one body;

"The eye cannot say unto the hand, I have no need of thee; nor again, the head to the feet, I have no need of you;

"And whether one member suffer all the members suffer with it, or one member be honored, all the members rejoice with it."

Railroad
Men
Trying to
Do Their
Duty

To be quite frank, gentlemen, the railroad manager wants to be honored, and he wants you to rejoice with him in the fact. He is earnestly trying to do his duty, and he begs your support and sympathy in accomplishing it.

* * * *

We have pending to-day before the Interstate Commerce Commission an application for an increase of 5 per cent. in freight rates. While the settlement of this particular proceeding must be made by the Commission itself, upon the basis of the facts presented to it, the railroad problem as a whole, if it is to be solved properly, can only be so with the thoughtful and broad-minded support of the American people.

Let us not imagine that even if this increase is granted, all our troubles will immediately vanish. If you must have a tooth filled, you do not go to a dentist and

THE RAILROAD MAN'S BURDEN

merely ask him to prepare a crown with which to cap the tooth. You realize that the most perfectly designed crown ever made, if placed upon a cavity which had not been thoroughly excavated, would sooner or later find that the forces which had caused the original trouble would, not having been removed, again undermine this model superstructure.

And so, dealing with the railroad problem, we must not forget that a vast mass of error and unwisdom has already found its way into public opinion and legislation, and it must be removed before a settlement will have been reached upon which sound progress can be based.

III.

TRAINING THE RAILROAD MAN

The college is both a training school and a laboratory. The industries of the world not only look to you to train men who can take up the work of directing and guiding great enterprise, but, to a constantly greater extent, industries are looking to you to solve their broader problems. When President Taft wanted a man to report on what should be the proper system of charges on the Panama Canal, he sent Prof. Emory R. Johnson, of the University of Pennsylvania, to make the inquiry. Some of the finest work in the study of the transportation question is being done by Prof. W. Z. Ripley, of Harvard. The astonishingly able accounting analyses of Prof. Henry C. Adams have been of priceless value to the Interstate Commerce Commission.

**Breadth
of View
Needed**

Right here, however, I would direct your attention to the point brought out in a conversation I once had with Mr. W. M. Acworth, the distinguished English railway economist, who, after returning to London a few years ago, from attendance upon a meeting of the American Economic Association, made this observation:

"I was surprised, hearing the college professors discuss the transportation question, to note how little

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they really knew of it. They understood the theory, but not the practice. And later, discussing the subject with many railroad presidents, I was astonished at their lack of breadth. They understood the practice, but few knew the theory."

And that, gentlemen, leads me to the chief thought I wish to present to this gathering. The demand of industry is for men who understand both the practice and the theory.

Let me be concrete. It is the experience of Pennsylvania Railroad officers that graduates who come to them from technical schools are deficient in three general particulars:

Where
College
Graduates
Are
Deficient

1. Lack of practical experience and judgment.
2. An idea that they are far superior to the rest of mankind.
3. A certain narrowness of mind, inculcated through a too exclusive attention in college to mathematics and theoretical science, and a too great neglect of those broader subjects, such as political economy, history and general literature.

With your indulgence, therefore, I will make a few suggestions as to how these deficiencies may be met.

1. The question of practical experience might be remedied by the man serving two or three years as a machinist prior to going to a technical institute. Of course, this is not feasible in a large number of cases,

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and the man must get his actual experience after he starts regularly to work. But the college can implant in his mind certain sound fundamental ideas. A man who has had a good engineering education and has absorbed commercial ideas will make a good commercial engineer. One who is a theorist and scientific man only, with no commercial ideas, will make a good investigator, and possibly a good man in a test department, especially when engaged in scientific research; but even a good test department man requires some little idea of business, because test room questions are not settled on quality alone. The best quality for the same cost is the real question at issue. The man of great value to an industry is he who does not merely attempt to follow a theoretical ideal, but who adapts his theories to the actual limitations of the moment, and secures the best practicable result.

**What
Makes
a Man
Valuable**

2. Men leaving technical institutions should be made to have a thorough understanding of the fact that they are necessarily almost completely lacking in a real knowledge of the practical application of the principles they have been studying. If a student can be trained by the time he completes his college course to have real openness of mind, he will be well on his way toward success when he leaves college. Young technically educated men leaving school should, at the start, forget that they are men of scientific training, and tackle

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work precisely as do other workmen, knowing that when they have mastered that part of their education, the time spent in doing so will not have been wasted.

While it is not expected that technical men entering railroad shops shall have to consume as much time on menial or trivial work as those not possessing such advantages, nevertheless, to regard time spent in the shops as time lost in the pursuit of their true vocation is a very grave mistake, and results in many technical men not being advanced to a position of managing other men.

It is of the greatest importance, too, that students be impressed with the human elements in all industrial work; that is, they must realize that whatever their college education may have been, they are of very little real value until they have acquired something which few colleges teach. Too often young men come from our colleges with the feeling that they know too much to be told anything by men who have not had a college education. By assuming such a stand they close the mouths of men who could and would give them very useful information.

Necessary
to
Emphasize
Human
Elements

A beginner in the practical end of any line of work should be taught beforehand that college education is not everything, and that results can only be accomplished through other men. Therefore, he must get the viewpoint of other men before he can secure that sym-

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Education
No Substi-
tute for
Judgment

pathy from these other men on which his success as a manager will depend. In doing this he will get much misinformation, which he will know to be such, but this knowledge he should keep to himself. We see all around us men holding the highest positions, who have come up from very small beginnings, with no apparent advantages. Yet we find that these men have their business at their finger tips, because they have been through all of its grades. The feeling that the possession of an education relieves a man from the necessity of going into these details has resulted in many men becoming nothing but technical advisers to carry out the wishes of other men who thoroughly understand the details of their work. Such merely technical advisers never share in the great rewards which come to the men who combine a mastery of both theory and practice.

3. It is of prime necessity, of course, that a man who is trained to practice engineering shall have a good engineering education. Successful men in railway engineering work must necessarily be familiar with the laws of Nature and the fundamentals of mathematics. This information can be obtained, however, outside of technical colleges, and the man who obtains his information in this manner, by the necessarily more concentrated application on his part, is generally a better engineer than a large percentage of college graduates.

TRAINING THE RAILROAD MAN

Many competent judges believe that technical courses in the majority of the colleges lay too much stress on details. If more time were spent on the study of fundamental principles, it would result in developing more resourceful men. Some of our officers, in advising young men, have suggested to them that they devote their entire time to the study of mathematics, physics, chemistry, English, and one foreign language, and not take up any particular branch of engineering. A student who is well grounded in the above studies can take care of any proposition which will come before him. His resourcefulness will be developed by reason of his being compelled to work from principles rather than trying to fit the problem before him to some particular detailed case which he has learned in his engineering course.

Many of our officers hold the view that the best shop work for college men is that which can be obtained during the summer in the various shops where actual work is done, rather than having the time of the student taken up by the more or less imitation shop work that is done at some of the schools. The most valuable part of shop experience to a student is the coming in contact with men and absorbing their experience.

I asked not long ago the man who, I believe, is conceded to be the greatest expert in this country in rail-

Where
Shop Work
Helps
College
Men

HUMAN NATURE AND RAILROADS

way electrification, to tell me what he really learned in college. His reply was:

"I am inclined to think that the most valuable asset that I brought out of my college course was the habit of studious application to the job in hand rather than a finished knowledge of any subject."

In the final analysis the technical student has only time to acquire a fairly good grounding in principles of engineering. The college-trained man, however, has an immense advantage, after he obtains some experience, over the non-technical man in being able quickly to grasp the relation between the theory and practice, and to apply correct principles to practice.

Importance of Not Being in a Hurry

I would urge that you not only see to it that students receive a broad general education, but that they be made to see that it is of great importance not to be in too big a hurry to commit themselves to a particular life work. College professors can be of great value to their students, and also to industries, by advising men frankly as to their limitations, and also as to their strong qualities. The principles enunciated in Prof. Hugo Munsterberg's remarkable book, "Psychology and Industrial Efficiency," will, I believe, receive more and more application as time goes on.

Young men are frequently placed in positions for which they are entirely unsuited, while if they were moved to other positions more adapted to their make-

TRAINING THE RAILROAD MAN

up, they would often prove successful. Some of the very best men in certain departments in our shops at Altoona can never go higher because there is nothing else that is suitable for them to do in general railroad work. In some of these cases no other men on the road could fill their present positions as well as they do. The only thing for such men to do is to leave the railroad and seek positions with concerns that can afford to pay more for the particular kind of ability which these men possess.

So much for suggestions as to how colleges can the better equip men for taking their part in building and directing our industries. You have all noticed, however, that this is a day of social service. Never before were so many men being called for to act for the people at large in the control of industry, and particularly transportation. The Interstate Commerce Commission has just advertised for a large number of engineers to assist in the pending federal valuation of railroads. Never did a situation more strikingly illustrate the need for men with practical training. If the proposed valuation is carefully and wisely made, it will do great good. As Mr. Thomas F. Woodlock said, in a most illuminating article in the *New York Times Annalist* of June 23d: "Practical confiscation—partial at least—of property actually invested in railroads will be quite possible by 'valuation' if the public is determined

What Is
Needed
Among
Engineers

HUMAN NATURE AND RAILROADS

to do it, or if the 'valuers' are permitted to run riot among the technicalities." It is an occasion when practical men are needed, men capable of seeing facts as they are—and not with reference to any theories or past prejudices.

Hopeful
Sign of
the Times

So men are being demanded for work with public service commissions, in colleges as teachers, in university settlement and municipal health work, in city governments, and in all those capacities where men can serve their fellow-creatures. This is one of the hopeful signs of our times. But this is a period of great unrest. Many strange economic and political theories are being preached. It is a time when our young men should see that things cannot be always as they should be, but that our duty is to make them as good as we can.

Railroad managers, for instance, would be delighted to equip every mile of road with automatic block signals, to make every car of all steel, to remove all grade crossings, and otherwise avail themselves of every device to insure safety. But this cannot be done without the necessary money. So in all things it is well to hitch our wagon to a star, but be sure that the connecting rope is long enough and elastic enough to let us keep the wheels on terra firma. We cannot go through life on an aeroplane.

The manager of every industry would be glad to

TRAINING THE RAILROAD MAN

allow his employes a short work day, and surround them with every comfort and luxury. But here again are limitations which must be regarded, and which it is of particular importance to have deeply imbedded in the minds of the men you send out into the world to work and to direct the labor of other men. Amidst all the efforts for social betterment, and for adding to the general welfare of men, we are forced to realize the old-fashioned doctrine that, in the long run, men can reap only as they sow. I leave with you, then, these lines of Kipling's:

“From forge and farm and mine and bench,
Deck, altar, outpost lone—
Mill, school, battalion, counter, trench,
Rail, senate, sheepfield, throne—

“Creation's cry goes up on high
From age to cheated age;
Send us the men who do the work
For which they draw the wage.”

IV.

TELLING THE RAILROAD STORY

Senator Cummins, of Iowa, is reported in the newspapers of to-day as having made these remarks, among others, with reference to the 5 per cent. freight rate increase:

The
Railroad
Publicity
Campaign

"In connection with the proceeding before the Commission there is in progress the most comprehensive, energetic and persistent campaign I have ever witnessed to make the people of the country believe that the effort of the Government to regulate railroads, railway rates and railway practices has resulted in dismal, disastrous failure.

"The railroads are trying to mislead and pervert the judgment of the people. They are trying to awaken sympathy by false pretenses. They are trying to deceive the country with exaggerated cries of suffering and distress.

"This extraordinary campaign has filled the newspapers with headlines, with dispatches. It gives dinners and holds public banquets where the eloquence of orators paints lurid pictures of empty treasuries, of worn-out tracks, of falling bridges and dilapidated equipment."

To be quite frank, it hardly seems fair that a speech

TELLING THE RAILROAD STORY

of that kind should be made in Congress. We are accused of having conducted a nefarious campaign to mislead the public and to prejudge the case now before the Interstate Commerce Commission. And yet, a Senator of the United States comes out upon the floor of the Senate and proclaims that the case we are trying to make out is absolutely without warrant. I don't condemn Senator Cummins for his speech. It seems to me that from his point of view it is quite a proper speech to make, assuming that we also have the right to reply. But to accuse the railroads of trying to mislead the public hardly seems fair when an effort is being made to prejudge the case in the United States Senate.

Now, since Senator Cummins has made this speech, I would like to tell you precisely what the railroads have done in this freight rate campaign. I happen to have personal knowledge of what I speak. We are accused in this speech of having inspired newspaper headlines, and I know that there are a large number of people in Washington who believe the attitude of the press in this matter has been stimulated by subterranean methods hardly worthy of public approval.

Railroads
Accused of
Sinister
Methods

These are the facts in the matter: Before this case was presented to the Interstate Commerce Commission, we came to the conclusion that the methods used in 1910 were unfortunate in that we had not taken our case to the people as well as to the Commission. We

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therefore asked our officers to go here and there before Chambers of Commerce, Boards of Trade, business organizations, and so forth, and present to them the case we expected to present to the Interstate Commerce Commission. Before the hearings were held in the presence of the Commission some of our representatives went to the Commission itself and said in substance:

"We don't intend to rely upon the casual newspaper reports for the people of this country to learn the reasons which we shall present to you and upon which we ask for this increase in rates.

*Going to
the People
with the
Story*

"We are going further than that. We propose after each hearing to make a short, succinct extract of every important fact which we present to you under oath. We intend to send such a résumé to every important newspaper in the United States, we intend to send it to the mayors of cities, to the secretaries of Chambers of Commerce in the various cities, to members of every State Legislature, to every State railroad commission, to postmasters in the principal cities, to college libraries, city libraries, and professors of economics in colleges. We intend that the people interested shall be fully informed as to every salient fact which we present to you. This, not to appeal from the Commission to the people, but to let the people know our position."

We asked the Commission, before that plan was undertaken, if they had any objections to make. We

TELLING THE RAILROAD STORY

received, and have now on file, a letter stating that the Commission had "no comments to make" thereon. From this letter we had the right to assume that the Commission had no criticism to make on this scheme, assuming, of course, it was carried out in good faith.

We have followed this plan carefully; we have tried to bring to public attention every pertinent fact which we have presented to the Interstate Commerce Commission. We have tried to make that campaign as intelligent, as comprehensive, as energetic, as it could have been made. We have restricted reference absolutely to matters of record. In order that everything should be open and above board, we have sent to the Commission several copies of every one of our publications. That is the entire extent of our newspaper campaign. If that is not a fair way to go to the people with a proposition, what is the meaning of the word "fair"?

Campaign
Open and
Above
Board

The campaign has been successful to a very large extent. The people are with us, and public sentiment in this country to-day appears to be largely in favor of the advance in freight rates. But it is inconceivable to a large number of people that this sentiment should have been developed by perfectly straightforward methods. We have been chided in the past for not having taken people into our confidence. When we take the people into our confidence, take them into our confidence with such palpable sincerity and completeness

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that we gain in return the confidence and support of the people, some of our friends in Washington think the devil has surely been at work somewhere, although they are unable to discover the exact method.

Railroads
Accused of
Arbitrarily
Discharg-
ing Men

The railroads have been accused—they were accused yesterday—on the floor of the Senate of the United States of having discharged a large number of employes for the purpose of affecting the decision of the Interstate Commerce Commission in this case. Now, gentlemen, that is a very serious charge. Our company, it is true, has discharged or furloughed about 38,000 men since the first of last October. But is it conceivable that a company like ours—and you must pardon me if I refer more or less to the Pennsylvania Railroad, because it is with that railroad I am employed and therefore most familiar—is it conceivable that a company like ours, with its record of harmonious relations with its employes, with a knowledge that so many of its employes must have of its actual condition, is it conceivable that we would play fast and loose with the daily bread of 40,000 employes for the sake of affecting the decision of any tribunal?

To accuse the railroads, the Pennsylvania Railroad along with others, of trifling with matters of that kind seems to betray a state of mind on the part of some people in Congress, and some serious minded people

TELLING THE RAILROAD STORY

throughout the country, which is at bottom the most serious phase of the whole railroad situation.

In discussing the state of affairs which prevails with the railroads to-day, let us first clear the ground of underbrush. In the first place, I think we can all agree to this, that you can't take any more money out of a railroad treasury than is already there. The railroad treasury is not an inexhaustible reservoir of money.

In the second place, I hope we can further agree that it is quite as important to the people to have good railroad service as it is to the railroads to be able to render good service and pay good dividends.

At a hearing before the Interstate Commerce Commission in the rate advance case, when Mr. Daniel Willard, President of the Baltimore and Ohio Railroad, was on the stand, Mr. Brandeis said:

"You have defended here to-day a reduction of practically everything that has to do with this railroad. You are putting off expenditures and necessarily, in the course of that, discharging employes. And the only thing that is maintained at its standard is the dividend."

To suggest the cutting or passing of dividends as a preliminary step in railroad economy is to strike at the very roots of our present business processes.

Restrict the railroads to a small return on their money when times are prosperous; deny them a fair

HUMAN NATURE AND RAILROADS

return when times are bad, and the railroads of this country will palsy and shrivel.

To insure a fair dividend to the railroad investor is the concern and the obligation of the public, which wants good service; it is the profound duty of the employe.

Why
Should
Railroads
Pay
Dividends?

If it were not for the capital invested there would be no railroads. Society considers it important to pay interest on savings bank deposits; but a larger part of such deposits earn their interest through investments in railroad securities. Why then propose to penalize the man who invests direct instead of through the medium of the savings bank or the insurance company?

Society commends the man who saves money, buys a house and thus avoids paying rent. But what about the man who saves money and buys railroad stock, depending upon his dividends with which to pay his house rent?

The dividend—the payment for all capital—is a sort of back-salary to those who have denied themselves the immediate benefit of earnings in order to assure themselves future benefits. They invest their savings. The fact that there are some large fortunes which do not imply such self-denial does not invalidate the great fact that the vast amount of money invested in rail-

Railroad
Investor
Cannot
Depend
on the
Future

TELLING THE RAILROAD STORY

road property in this country is from the savings of the people.

The fundamental weakness of the situation as it confronts us at the present time is that though we have obtained capital for railroad developments in the past, in order to give increased service we must obtain additional capital in the future; and there is to-day no established policy on the part of the people or the Government concerning the railroads which enables a man putting his money into a railroad investment to know the kind of treatment he is going to receive.

If you were going to invest money in any particular line of business you would take into consideration all conditions surrounding it, the state of credit, supply and demand, and you would figure out what you were entitled to expect if you put your money therein. No such estimate of the railroad situation is possible at the present time.

There is no need to defend past bad practices of any railroads. It is impossible. We cannot ask for 100 per cent. purity in the railroad business any more than in any other business. But this I do know, and I think you know, also, that the railroad systems of the United States do their business for cheaper freight rates; they pay their labor higher wages; they pay more taxes in percentage to the amount invested, than

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in any other country in the world. That would seem to argue efficiency.

We also know that no other business in the country has ever been given the castigation and thorough cleaning out which the railroad business has undergone in the past ten years. I believe to-day that the railroad managers of this country are performing their duty to the public and to their shareholders in a manner that is equal if not superior to the performance in any other business in the United States.

The Vital Problem

Conditions will never be perfect. There will always be things done which ought not to be done. But we have got to face a real condition: How can we, taking matters as they are, taking men as they are, how can we get the best practical result with the best means which are available? That is the railroad problem.

We are, in the regulation of railroads in this country, in the condition that the practice of medicine was about one hundred years ago. You remember that when a doctor of medicine was called in in those days about the first thing he would think of doing to any patient was to bleed him. The thought was that if he let out a little blood, he might at the same time let out some of the impurities, and perhaps the patient would be better off for that experience. Nowadays we know that the patient must be strengthened.

TELLING THE RAILROAD STORY

I was very much interested the other day in reading the diary of George Washington's private secretary describing the last day on earth of the first President of our country. This was published in *McClure's Magazine* in 1898, and has, I believe, every evidence of authenticity:

"December 14, 1799.

"Between two and three o'clock, on Saturday morning, he awoke Mrs. Washington and told her that he was very unwell and had had an ague. She observed that he could scarcely speak and breathed with difficulty. . . .

"I despatched a servant instantly for Rawlins [a "Bleeding" professional bleeder] and another for Dr. Craik. . . . Rawlins came in soon after sunrise and prepared to bleed him. . . .

George Washington

"Dr. Craik came in soon after, and, upon examining the General, he put a blister of cantharides on the throat, [and] took some more blood from him.

* * *

"About eleven o'clock Dr. Craik requested that Dr. Dick might be sent for, as he feared Dr. Brown would not come in time. . . . About this time the General was bled again.

* * *

"Dr. Dick came in about three o'clock, and Dr. Brown arrived soon after. Upon Dr. Dick's seeing the

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General and consulting a few minutes with Dr. Craik,
he was bled again.

* * *

"[That evening between ten and eleven] he expired
without a struggle or a sigh."

* * *

May the bleeding of railroads stop before it is too
late!

V.

WHY SHOULD WE MAKE THE RAILROAD SAFE?

We hear a great deal these days about "safety first." This is a day when the value of human lives is being recognized as never before. We believe that human lives and human limbs should be saved, and indeed they should.

But what is the economic basis for this safety? What is the groundwork upon which we must proceed if we are to secure this very desirable safety upon a sound basis?

If you spend more money for safety than your safety will produce or protect, you are exhausting your resources. Instead of wasting your resources in expenditure of money for mechanical appliances to procure safety, I want to suggest to you that we should devote ourselves more and more to the development of the man; man failure is the primary problem with which we have to deal. A human life is valuable—spiritually, beyond price. But it must be assumed that every individual will do his share of the world's work. It is the duty of society to give him a chance—a fair chance to do it well. But to make the conditions of life as safe as science has shown possible, without regard to the

Emphasis
Should be
on the Man

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productive value of such safety, places upon society a burden it cannot bear indefinitely.

In all the hazards of life, we must assume that reasonable care will be exercised. We should provide that measure of safety which should result from reasonable care in handling the materials of civilization. If we did not assume reasonable care, we would never transport dynamite or ourselves cross a street.

Accidents Due to Man Failure

On the Pennsylvania Railroad, during the six months from July 1, 1912, to January 1, 1913, there were 7400 injuries to employes, of which 159 resulted fatally. Careful analysis showed that all but 10 per cent. would have been avoided by reasonable care on the part of the men. Had the railroad been conducted by the management with absolute perfection, 90 per cent. of these accidents would have taken place anyway.

During the first four months of this year, six passengers were killed and 236 injured on our railroad by reason of their own carelessness; 174 were injured on account of the joint fault of themselves and the railroad or of the railroad itself. Thousands of people are killed every year while trespassing on railroads. It is carelessness in the final analysis.

In England, where life is highly valued, the railroads use wooden passenger cars, veritable band boxes. The reason for not replacing them with steel is frankly given as the great cost.

WHY MAKE THE RAILROAD SAFE?

In this country we have gone far ahead of England in this respect. We are building steel cars as fast as practicable. But to equip all our companies with steel cars immediately would cost \$600,000,000, and the railroads could not pay the bill.

Suppose we apply the principle of insuring safety to our ordinary daily life. We hear frequently of families burned to death in their homes. Do we immediately order all landlords to build houses that shall be fireproof?

Safety in
Our Daily
Life

On December 3d, last, the Arcadia lodging house in Boston burned and twenty lives were lost. Did the city immediately close all other lodging houses? If all dwelling houses had to be fireproof, the great majority of dwellers in them could not pay their rent. We must assume reasonable care on the part of the householder in protecting himself from fire.

In these days of automobiles, disasters at railroad grade crossings are of frequent occurrence. Grade crossings are unavoidable. Without them, few railroads could have been built in this country. They are one of the inconveniences of progress to be eliminated just as fast as possible.

There remain on the 11,000 miles of line comprising the Pennsylvania System, 13,027 crossings at grade. To eliminate them all would cost upward of \$600,000,-

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000. To remove all grade crossings in the United States would cost over \$5,000,000,000.

Yet the State of New Jersey has recently enacted a law placing on the railroads the entire burden of removing grade crossings, in spite of the fact that railroads already pay in taxes 46 per cent. of all the expenses of running the government of the State of New Jersey.

Need to
"Stop,
Look and
Listen"

It is desirable to remove grade crossings as rapidly as possible. The Pennsylvania System has spent about \$75,000,000 the past ten years in improvements involving the removal of grade crossings. But the continuance of the process will of necessity be slow, and if people will only "Stop, Look and Listen" as they come to a railroad grade crossing, a large part of this awful waste of human blood will be prevented.

A railroad must spend a great deal of money in securing safety. No one regards that practice more highly than those who manage the Pennsylvania Railroad Company. We have spent enormous sums to secure safety—for steel cars, eliminating grade crossings, and for other purposes. But we must at all times keep in mind the fact that there is an economic limit to what can be done, and that the principal energy should at all times be directed to securing carefulness—carefulness of the men.

There is no way to secure safety by rule or by me-

WHY MAKE THE RAILROAD SAFE?

chanical formula. We are ordered by the legislatures of different States to add unnecessary men to the crews of our trains. But there is no added safety. It is important to consider very practically the actual results obtained from such expenditures, both in mechanical equipment and in additional—and as we think, unnecessary—men.

Adding together the number of tons of freight and the number of passengers carried one mile—the measure of service rendered—on the Pennsylvania System, shows 44,073,709,456 units of service in 1913, as against 42,189,355,895 in 1912. In 1913 there were 204,875 units produced per employe, while in 1912 each employe produced 211,671 units of service.

The payments on account of injuries show that one dollar per 20,976 units of service was paid in 1912, while in 1913 one dollar was paid for each 18,453 units of service. In 1912 the railroad company rendered 1,179,495 units of service for each injury, while in 1913 there was an injury for each 1,119,105 units of service.

The bill to obtain absolute safety is stupendous. All railroad companies have trouble with breakage of rails. Yet careful inspection—man efficiency—keeps down the number of accidents from this source. It is found that payments for personal injuries due to rail failures are very small, yet to secure such immunity from such

The Safety
Bill is Stu-
pendous

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failures as is scientifically possible would represent an enormous expense. Who can pay it?

It cannot be overlooked that though we are entering upon a new railroad era, an era demanding elimination of grade crossings, demanding improved railroad stations, steel cars, automatic signals, higher wages to the men, better accounting and numerous other similar details which I might mention, we are not at the same time giving attention to providing for the cost of these improvements.

Who is to
Pay the
Railroad
Bill?

Whether the railroads are operated by the Government or whether they are operated by private companies, it is perfectly obvious that anything they do that involves the expenditure of money has got to be paid for. If they are operated by the Government, I am quite prepared to concede that the Government credit might make it possible to get capital at a slightly lower rate of interest than is the case with private management.

Experience with government ownership, however, is that, although capital can be obtained at lower rates of interest, the expenditures upon operation have been upon a very much higher basis of cost per unit of service rendered, thereby absolutely neutralizing any saving which was obtained through getting capital a little cheaper. In fact, experience of government railroads throughout the world to-day is that every one of them

WHY MAKE THE RAILROAD SAFE?

is overburdened with personnel and because of the further fact that managements are unable to control expenditures upon economic grounds because of political conditions.

The railroad business in this country was developed largely upon the theory of providing simply the elements of transportation. The structure of freight rates, and of passenger rates also, grew up upon the theory that about the only purpose of a railroad company was to take a given amount of freight or to take a man and carry him from one place to another. Very little consideration was given as to the method or standard by which that should be done. Now, in England, and in most of the foreign countries, railroad conditions grew upon an entirely different theory.

In England, for example, they already had a fairly satisfactory system of roads and canals and other means of transportation. The railroads, when they came along, were told: "You may run your railroads, but as you are to be sure of our traffic, you shall not run them until you can construct a perfect plant." Consequently grade crossings were not tolerated and many other things were taken care of before the railroads were permitted to open up at all. With what result? With the result that because the cost of property was so high and the cost of eliminating grade crossings was so great, and because of the high stand-

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ard of construction, for every dollar of business obtained it cost eight dollars of capital. Now, in this country it has cost us about three dollars of capital for each one dollar of gross business. We have found, however, in the past few years that it is costing us from five to six dollars of new capital to obtain a dollar of increased business.

Standards
Constantly
Raising

The standard is improving all along the line, so that any time we do any new increment of business we have got to handle it upon a different basis than was the case before these new conditions were created.

As standards are raised every new thing we do in the future is going to involve a greater expenditure of capital for every bit of new business which we handle.

In England, railroad expenses are 50 to 55 per cent. of the gross revenue. The balance of the money goes to provide a return on the invested capital. The Pennsylvania Railroad, for instance, is now operated on a basis of approximately 75 per cent. England is able to operate at 50 to 55 per cent. ratio in only one way—their scale of charges is very much higher. We charge from two to two and a half cents a mile for passengers, while passenger rates at first-class in England are on the basis of four cents a mile. You ride on a parlor car from New York to Philadelphia, one way, and the cost is \$2.75. You ride in England from London to

WHY MAKE THE RAILROAD SAFE?

Dover and you pay \$5, and the distance traveled is about the same in each case.

So freight rates are higher there. If we wish to have a railroad system operated upon a higher standard we have got to pay higher rates for freight and passenger service in order to obtain the benefit of those developments.

The Interstate Commerce Commission and others have frequently urged the railroads to adopt an automatic stop. No automatic stop has yet appeared which will give proper service; but assuming the invention of a reliable automatic stop, would its use be desirable? At present the responsibility for the safety of a train is concentrated in the men of the engine crew, whose own lives are at stake. An automatic stop would transfer this responsibility to the man who sets the signals, whose life is not at stake. England has had more serious accidents of late from man failure in the signal tower than man failure in the engine cab. It is the *man* that we must look to in the final analysis.

Is an Automatic Stop Desirable?

These same principles apply to the safety of locomotives and those using them, a subject to which the Government is giving much attention. Our own companies have been compelled to expend over \$600,000 in installing self-cleaning ash pans—an expense, in our judgment, absolutely wasted, and which would have

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been avoided if we had been able to induce men to be careful in the use of facilities already provided.

It is now proposed to establish an arbitrary allowable stress for locomotive boilers—a factor of safety, as it is called. A factor of safety must always be a matter of judgment, but such judgment should not merely be an idea; it should be a result of the best practical experience.

Imposing Arbitrary Burdens

The experience of American railroads is that only 6 boiler shells out of 63,000 have exploded during the past two years; 3 per year, or one in 21,000 locomotive boilers. Yet it is now proposed to impose a very heavy burden of expense upon railroad companies to make their boilers still more immune from accident.

No countries in the world, excepting those where the railroads are owned and operated by the government, have yet prescribed an arbitrary factor of safety for locomotive boilers. Now, what is our experience?

On the Pennsylvania Railroad we have not had a boiler shell explosion since 1880, and yet if the factor of safety, if you please, the theoretically reasonable factor of safety which it is now proposed that the Interstate Commerce Commission shall adopt, becomes a law, it will necessitate our improving the factor of safety in about 5000 locomotives at a very great expense.

The factor of safety is a matter of judgment at all times, and if a man comes along and says your factor

WHY MAKE THE RAILROAD SAFE?

of safety should be 5, and if you tell him we have gotten along extremely well with a factor of safety of $3\frac{3}{4}$, he can only tell you that the new factor is necessary because these locomotive boilers should have exploded long ago! It is all primarily a question of carefulness of the men who use them.

We can only go by experience in such matters. It is an economic waste to put more weight in a bridge than allowance for its expected burden and any reasonable increase of weight requires. What is needed is careful workmanship in the beginning, careful maintenance and careful handling. It is the *man* to whom we must look, not rules and formulas.

Must Look
to the Man

The value of the man is shown in the experience of boiler insurance companies. The money they receive in premiums is expended 25 per cent. for acquisition of the business, 50 per cent. for inspection, 10 per cent. for management, 5 per cent. for profit and only 10 per cent. for losses.

In other words, if the men who had built the boilers had done their work as it should have been done, 90 per cent. of the money expended for boiler insurance might have been saved.

Good workmanship is the primary desideratum, and it is to that we must look. Quality of material is often blamed for failure where in truth the responsibility rested upon the character of the workmanship. There

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is nothing a good boiler maker can do which will mean more to the railroad company than to devote the necessary attention to producing good workmanship in locomotives, either undergoing repairs or while being handled in the engine house, for this will increase the kind of service that can be obtained from a good machine.

There are the men of the future to think of—the young men in the shops or entering the service. It is of great importance that we transmit to them the knowledge and experience of the elder men. Younger men are now often criticised for their lack of knowledge of their work, but in many cases this is more often due to the lack of instruction to the younger man than it is to the young man's lack of ability or desire to learn.

Let us concentrate on the MAN. Not in rules or mechanics will we find half the safety we will in the fidelity and the enthusiastic service of conscientious MEN.

VI.

PUBLICITY—A CURE FOR RAILROAD EVILS

Publicity is an effective cure for most railroad financial evils. Focus the bright light of day upon any transaction and men will be extremely careful to see to it that the transaction is legitimate.

Nevertheless, a bill is pending in Congress, and has strong support, providing that the Interstate Commerce Commission shall have the right to approve or to forbid security issues by interstate railroads. This measure, imposing discretion of the gravest import upon the Commission, would mean that the Government had refused to avail itself of an expedient whose efficiency was guaranteed by the character of human nature itself.

Recount past episodes in railroad finance which have been severely criticised and there will be difficulty in finding a single instance where things that were ethically improper would not have been done differently if those concerned had known that the beginning and the ending of the transaction would be subjected to the acid test of publicity.

Give the Commission, if you like, the amplest powers to secure publicity. When an issue of securities is proposed, let the Commission have the right to call

The Best
Kind of
Preventive

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for the most exhaustive information, including the exact facts as to bankers' commissions, and all expenses of issue, what it is proposed to do with the money, and other significant and consequential data.

Give
Ample
Powers to
the Com-
mission

Give the Commission power to see to it that all this information is spread before the public, or if the Commission considers that public interest would be served thereby, the Commission should have the right to withhold temporarily the publication of information which might embarrass tentative negotiations.

Let the Commission also have complete powers to compel the most exact accounting of the use made of the funds derived from any such securities.

This plan would secure absolute honesty and good faith in all security issues, and that above all else is what the Government should insure. This plan places responsibility for such issues exactly where it belongs, namely, upon those who are to take the risks involved. If the Commission is to have the power to say "yes" or "no" concerning security issues, that means that in fact the Commission shall say that such issue is justified and that the particular form of issue proposed is wise under the circumstances. That places the discretion where it ought not to be, for in the event that an issue of securities, approved by a commission, should later prove to have been unwise, the Commission will be under an implied moral obligation, and

PUBLICITY—A CURE FOR RAILROAD EVILS

the public for whom the Commission acts will share the responsibility of seeing to it that a proper return is earned. To accomplish that might call for rates which would be burdensome upon the public and the innocent shipper and traveler would be forced to suffer for the mistakes of governmental authorities. No matter how good the intentions, and no matter how honestly applied, if money is spent unwisely or unnecessarily, the responsibility should fall upon those who actually make the expenditure.

It is elementary in the character of human nature itself that such a plan would constitute a most effective method of insuring the most exacting honesty in railroad finances; and to secure honesty is about all the Commission can undertake.

If the Commission is going to assume to decide what is or is not wise, why let private management take the risks? The Commission should not take the risk. The man who supplies the money should take the risk, and you should see to it that the light of publicity is focused on everything that is done.

The best burglar alarm that I ever saw was in a house in Schenectady, N. Y. There was a system of electric lights all over the house which were lighted in the usual way. In addition, a separate circuit was attached to every light in the house and controlled by a button at the owner's bedside. Thus, if during the night he heard

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any unusual noise going on about the house, he would touch the button and every light would go on. One can imagine the feelings of a burglar finding himself in a house with every light suddenly turned on.

It is elementary in human nature that if a man realizes that everything that he does is going to be subjected to the light of publicity, he is going to be very careful that what he does is legitimate. Most people do the legitimate thing anyway, and if you have this scheme of rigid publicity, you do not need to have the Commission say yes or no. You place the responsibility on those who are going to take the risks.

Capital
Must Be
Rewarded
for Its
Risks

But it is said that transportation companies should not have the power, even in good faith, to make issues of securities which might involve an unjust burden upon the public. But if railroads are to be developed through capital being supplied from private savings, must we not continue to see to it that private capital takes the risks, that private capital has every inducement to see to it that efficient management is secured and that private capital is rewarded for its risks somewhat in accordance with the risks taken?

The Interstate Commerce Commission maintains that it is a court and must decide the reasonableness of rates upon the basis of the evidence presented. But how can a court determine whether or not a schedule of rates is burdensome upon a community? Is not

PUBLICITY—A CURE FOR RAILROAD EVILS

the real test whether or not under such a schedule the community as a whole prospers and that there is no unfair discrimination against any one or any community?

A freight rate is somewhat in the nature of a customs tariff. The ultimate test of the success of a customs tariff is whether or not under it commerce is fostered and the people prosper. A court cannot determine the question in either event. It is a legislative—not a judicial—function.

It would be comparatively easy to judge of the reasonableness of the return earned by railroads if the railroad plant were fixed and not continually developing. In England the railroads are built and not much further development will be required. It would be easy there to take up the question and decide as to whether or not the earnings of railroads provided an adequate return upon capital actually invested.

But the supreme difficulty arises in the fact that in this country our railroad system is very much undeveloped. There is invested in our railroad plant somewhere between twelve and fifteen billion dollars in cash. But the real question is not whether we are permitting the railroads to earn an adequate return upon this investment, but whether our policy toward railroads is such that we can promise an adequate return upon the investment of the future.

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The judges of the adequacy of the future investment will be the men and women throughout the world who out of their savings supply the money. If they do not think that the money so invested will yield a return which to them will appear adequate (and that adequacy will be determined by what others will pay them for the use of the same capital), they will not supply the money and the railroad development cannot continue.

The Vital Question

The vital question is, therefore, whether our railroad policy shall be such as to induce people to invest their savings in providing the new railroads and the improved railroads necessary for the proper development of our country.

We may squeeze, we may strangle, we may abuse, we may even confiscate existing railroads to our hearts' content. The people of the United States, through their constituted authorities, have the undoubted power to do anything they really want to do in that regard. But the entire power of the United States is unequal to the task of forcing future surplus capital of the world into future American railroad development if the people who own this surplus capital do not believe they are going to be adequately compensated for their investment.

VII.

REGULATION HAMPERING GOOD MANAGERS

Even before the plague of war afflicted the family of nations, the United States was suffering from arteriosclerosis, in that the blood vessels of its commerce were hardening; failing to respond to the expanding business life of the country.

If the bread making in a community was in the hands of a coterie of bakeries, built up by private capital, there would be no reason why the public should raise the price it was paying for the bread in order merely that the owners of the bakeries might find the financial return on their investment made more secure. In the event, however, that these bakeries were not large enough or up-to-date enough to supply sufficient bread of a proper quality to take care of the demands of the growing community, it would be a matter of supreme importance that the people should make the price of that bread sufficiently high to induce private capital to supply the increased plants required.

There might be some to urge that such plants should be owned by the community itself, but if past experience showed that more bread, and better and cheaper bread could be supplied by inducing private capital to provide the necessary facilities, obviously community ownership would not be worth while.

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The railroad question, therefore, must be viewed as a common-sense business proposition. Some day the people will realize that proper provision for transportation is of as much importance to the prosperity of the nation as adequate provision for breadmaking is essential to the health of a people.

A bank maintains public confidence by paying to each depositor precisely what he is entitled to. A bank's obligations to the depositors are mathematical. Unfortunately for the peace of mind of its officers, a railroad's obligations to the communities along its lines are not susceptible of mathematical determination. What they shall pay out in the form of service ought to be in keeping with their obligations to each community. But to determine the extent of that obligation is not easy; it must be a matter of judgment, a balancing of interests.

Perfect
Railroads
Impossible

If our treasury was unlimited we might have beautiful stations at every city, automatic signals, a straight track, steel cars, electric locomotives, all those ideal conditions which the railroad officer dreams of but knows he cannot realize.

We cannot do all. But we do want to please. The confidence of the public is our only sure fortress. We want the communities whom we serve to realize that in seeking to strike a balance on behalf of the diverse interests we must consider we are devoting the thought

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and conscience of a body of trained men, earnest and sincere.

Mistakes have been made by the railroads in the past, and honesty of management and fairness of treatment of all the public should be, as far as possible, insured. But we are face to face with a definite problem—a problem which cannot be solved by any orgy of indignation over past wrongs. As Mr. Prouty, of the Interstate Commerce Commission, expressed it: "We can make rates reasonable, we can remove discrimination, we can put on schedules for the running of trains; all that is easy.

"The question is here: Can you obtain under this system the new money which is necessary to develop our old railroad systems and to build our new railroad systems?"

The Supreme Problem

Railroad traffic in this country has doubled itself every ten or twelve years. The demand for increased facilities must be met or else the growth of the country will be stultified. With our great distances we have a peculiar problem to meet. Our cotton comes from the South; our grain from the West; our fruit from Florida and the Pacific Coast. The manufactured products of New England and the coal of Pennsylvania must be moved to where they are needed, quite as much as the sugar from Louisiana and the lumber from North Carolina. The constitutional

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guaranty of free trade between the States will be of little avail if through error or lack of foresight we make it impossible for the products of the mine, the field, or the factory to move quickly and cheaply to where they may be utilized.

In Germany there is one mile of railroad for every 5.7 square miles of territory; in France, one mile of railroad for 8.5 square miles of territory. In this country there is one mile of railroad for each 13 square miles of area.

Our
Railroad
Develop-
ment

Most double- and four-track railroad mileage of this country is east of the Allegheny Mountains. There is only one double-track railroad west of the Missouri River, and that line—the Union Pacific—must go 372 miles from Omaha before reaching Julesburg, the half-way point between New York and San Francisco.

As Mr. James J. Hill said in a speech not long ago:

"A capitalization of \$60,000 per mile will not transact the business of the country. On all trunk lines and wherever population becomes dense and traffic heavy, capitalization will have to be made larger for new facilities and double tracking. It is no exaggeration to say that the commerce of the country can escape threatened disaster only by such additions to and enlargements of existing facilities and terminals as will relieve the congestion which now paralyzes traffic when any unusual demand is made upon them."

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To-day we are confronted with the fateful possibilities to our national life of the most terrible cataclysm in the history of mankind. Though we do not participate in the struggle, we suffer with the whole world the devastations of the economic volcano.

All civilization is stricken. He is indeed a bold man who will prophesy, but this much we know: Destruction of wealth is proceeding upon a gigantic scale; production has been enormously curtailed; and demands for the world's capital are becoming ever greater and more insistent.

It is clear that in this country we have now to look forward to a period of economic convalescence. The symptoms of sickness in our business life are too plain to ignore. We must plan now to build up, to repair, to reconstruct. This country cannot and will not stand still.

America
Will Not
Stand Still

Yet, at such a critical moment in the world's history, our country is—unwittingly, I believe—committing against the railroad the most dangerous of business sins, namely, taking something without paying a fair price for it. To correct this, we must pay more for our railroad service. Such additional revenues would supply the substance with which to develop the arteries of trade. But something else is needed. The American railway system has been built up through the enterprise and ability of the ablest business brains in the

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country. We pay the highest wages, the highest taxes in proportion to the investment, and, with the lowest capitalization per mile, do our business for the lowest freight rates charged on the railroads of any of the great nations.

This result has been produced by encouraging, promoting and fostering railroad enterprise. The railroad was the great constructive force in our national life. Men risked money and comfort to build railroads, that factories and farms might follow in their wake. As a great English economist has said, "In a country the most extravagant in the world, you have developed a railroad system which handles traffic more economically than anywhere else in the world."

The Present Tendency

But is there reason to expect a continued display in our railroading of this supreme initiating and efficient activity? Only a few years ago railroad effort was spent in devising means to give the greatest possible amount of service for the lowest rates; the tendency now is to force railroads to give the least possible service for present rates.

As a result of the vast effort and ability expended, the American railroad system had become the wonder of the industrial world, but the tendency of all Governmental regulation now is to invade the field of the very management which had produced this wonderful result. No sane railroad officer can object to earnest, impar-

Government
Working at
Cross
Purposes

REGULATION HAMPERING GOOD MANAGERS

tial, non-political Governmental regulation, especially where the design is to prevent discrimination and the imposition of burdensome rates.

But the Federal Government and the forty-eight States are pulling and tugging at railroad managers, giving conflicting orders, imposing the caprice of theorists oftentimes over the experienced judgment of experts. The field within which railroad managers may exercise their trained abilities is slowly diminishing. Expenditures are being arbitrarily imposed, regardless of their relative desirability.

Railroad officers are not permitted to spend the time they should give to creative activity. The president of a large trunk line railroad a few days ago, after a very busy and burdensome day in New York, remarked: "I have done a hard day's work, and yet not one single minute of my time has been devoted to the purpose I ought to be mainly serving, and that is operating the railroad."

It is no uncommon occurrence for every general traffic officer of the Pennsylvania Railroad to be away from Philadelphia at different places looking after business incidental to Governmental regulation. It is obvious that such enforced activities are not creating new business nor helping to build up the country.

This invasion by Government of railroad management is one of the disquieting elements of the future. Gov-

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ernment regulation—so sound in theory—has up to now developed this situation: The public demands improving service; the increased and improved service does not pay its way; yet the Government burdens upon railroads are undiminished; and the Government, while continually interfering with management, accepts no responsibility for the financial result.

Forces of
Progress
Benumbed

The tendency is to benumb active forces of national progress. Investors are gravely concerned, and our policies so hamper and hinder those who conduct railroads that atrophy threatens those managerial muscles which are so necessary to the healthy development of the arteries of commercial life.

Safety, for instance, is essential at all costs. But in an imperfect world, all perfection is not instantly attainable. Safety cannot be insured by resolution or mechanical device. It is primarily a resultant of care and discipline.

Railroad officers are interested in safety above all else. Any accident on a railroad places its management on the defensive. Laws to compel railroad managers to make their railroad safe are ineffective unless the money with which to do it is obtainable. If that money is obtainable, no one is more delighted in assuring safety than the railroad officer himself.

It is not necessary to pass laws to compel bankers to keep their money in fireproof safes. If the banker

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can afford it, he buys an armor-plate vault; if not, he gets the best thing he can. His very business life depends on his guarding safely the money of his customers.

So with a railroad, safeguarding the lives and property of patrons is the very essence of operation. It's the human nature of it.

But everything cannot be done at once. It would cost \$600,000,000 to replace every wooden passenger car in this country with an all-steel coach. It would cost the Pennsylvania Railroad \$600,000,000 to remove all the grade crossings on its own system alone.

The most important thing must come first. A mandatory law compelling certain expenditures may be desirable in itself, but as preventing provision for other pressing needs, becomes really a public injury.

It is therefore of supreme consequence that railroad managers, sincerely striving to do the best they can, have every stimulus and aid in meeting the many conflicting demands made upon them.

If you were to invest in a stable of thoroughbreds, horses to take you to your work in the morning, to assist you in tilling your fields and carrying your harvest to the market, you would surround the daily life of those animals with every circumstance to insure their health and condition to perform the service expected of them. Above all things, you would not starve

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them, you would not beat them, so as to destroy their spirit; you would see that all of their needs were cared for and you might even occasionally give them a bit of sugar in appreciation of loyal, faithful service. You would do this not because of personal affection for your horses. You would give them food and stable room as a matter of common humanity and justice. You would treat them well that they might serve you better.

Strange Notions Abroad

Not only are managers discouraged, but the rank and file of labor are coming to have strange notions these days. Strange notions, many of which I have often felt are based, not upon a consciousness that they are receiving inadequate pay for their work, but that they are receiving inadequate recognition for the part as men which they play in working out our problems.

With the development of our larger corporations the men have often come to feel that they are more and more remote from headquarters; that the general manager is a man they never see, and he simply bears down upon them as hard as he can and gets as much out of them for as little money as possible.

It seems to me it is not merely a matter of pay for our men, for we must see to it as far as we can that each class of labor is paid fairly, and that certain classes are not permitted to force an unwarranted

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share for themselves as dividends; but it seems to me The
Spiritual
Side that in addition to that we must, in individual ways, get our men to see something of the spiritual side, if I may so express it, something of the value of doing good work for the sake of good work.

There is slowly getting into the minds of our labor the thought that men should not work any more than they are absolutely compelled to do; that there is no obligation to society; there is no obligation to their conscience to do a good job of work for the sake of doing it.

In order to make men of all grades feel differently, enthusiastically, we must make them feel that their work is appreciated.

To restore the health of the railroads, to make them the efficient agency of commerce which they should be, we should provide them with ample revenues, and, in addition, prevent the Government from meddling with management. Insist that railroads play fair and perform their due obligations—yes—but outside of that, encourage and foster a spirit of enterprise, enthusiasm and energy on the part of railroad men themselves, so that American trade may continue to enjoy the whole-hearted service of the men behind the greatest transportation system in the world.

VIII.

DO WE WANT GOVERNMENT OWNERSHIP?

It is the concurrence of forces increasing railroad expenses on the one hand, and making it on the other impossible to secure the revenue with which to meet these expenses, which constitutes the strongest undercurrent which is moving the United States toward Government ownership.

Conflicting Forces at Work

It is as though we were seeking to move along by the trade-winds carrying us to initiative, enterprise, progress, and the development of commerce, yet found ourselves caught in the gulf stream with a current forcing us toward the enervation, damped enthusiasm, the political chaos and the bureaucracy of Government ownership.

There are 175,000 miles of railway in all parts of the world operated by State railway administration, and 425,000 miles operated by private enterprise.

State ownership in Germany is absolutely autocratic and is not public ownership in the sense that its primary purpose is to raise wages, reduce rates, and increase the amount and quality of service.

The successful building of the Panama Canal under Government management has been just as autocratic as the State administered railways of Germany, or as

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the construction and operation by Lord Kitchener of the railroad from Cairo to Khartoum.

In France the Government monopolizes the sale of tobacco—hence one has to go out of France in order to get good cigars. France also is the only producer of nicotine. Because of the lack of suppleness which always characterizes Government enterprise, the failure of the Government to supply the necessary nicotine to rout out a pest of insects in France lately caused the winemakers to lose tens of millions of francs.

France monopolizes the telephone, and as a consequence the telephone service is execrable.

French experience with the operation of railroads has been equally bad. Before the Government took over the Western Railway in 1908 the deficit of the company, under the then private management, was 27,000,000 francs per annum. In 1909, the first year that the State had control of the roads, this deficit rose to 38,500,000 francs, and continued to rise as follows:

	Francs
1910	58,000,000
1911	71,000,000
1912	84,000,000
1913	90,000,000

Twenty-five years ago President Hadley, of Yale, in his "Railroad Transportation," wrote as follows:

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"There is a strong popular feeling in favor of Government ownership of railroads." Mr. Bryan voiced this view when he returned from Europe in 1905. Mr. Olney commented upon Bryan's theories as follows: "The situation is this: As a matter of theory, Bryan favors Government ownership of the railroads upon the anticipated failure of Government regulation. As a matter of practice, Roosevelt and his disciple Taft are favoring a kind and degree of regulation of the railroads which makes Government ownership of railroads both logical and imperative."

Would
Govern-
ment
Owner-
ship Help?

What would be the effect of Government ownership? Would it be to reduce rates, reduce fares, or to increase wages?

Is there some magical quality which enables a man to do better work when he becomes a Government employe than when an employe of a private corporation?

In the large Government ownership undertakings special political motives have almost always lain under the action taken. In Belgium, as in Switzerland, the fear of foreign financial control was a very powerful factor in inducing the resumption of state activity.

State industries of all kinds are open to serious criticism because of their very defective systems of keeping accounts. This is notably the case with our own Post Office Department, which, through the Postmaster General, has recently reported a surplus for

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last year, although not one cent was paid for carrying the parcel post, which added greatly to the revenues of the Post Office, and not one cent was charged against revenues to pay interest on the investment in the plant.

Herr von Gwinner, of the Deutsche Bank, of Berlin, said in the Prussian House of Peers on May 30, 1910:

A German
Com-
parison

"If the Pennsylvania Railroad Company were financially administered in the same manner as our Government railways, its shares would constitute the most speculative investment on earth; in one year they would pay 2 per cent. dividends, in the next year perhaps 7 per cent.; whereas, a well-administered undertaking like this Company is trying to offer permanently stable dividends."

The effect of Government ownership upon the State itself is bad. The entry of the State into general or specific competition with its own citizens is neither wise nor profitable.

We find the framing of a tariff bill is complicated. But if the framing of a tariff bill is such a vast and vexatious proposition, who can estimate the extraordinary difficulties of having a Government board determine the millions of local and through rates for the greatest mercantile nation of the globe?

If we had Government ownership, we would still have these ever-present problems: Should lumber be car-

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ried as cheaply as coal? Should all rates be upon the same mileage basis? Would you give the same facilities and the use of the same equipment to a sparsely settled territory as you would to a thickly populated area?

Generally speaking, it costs the Government a great deal more to get a piece of work done than it does for a private company—not necessarily because of corruption, but by reason of cumbersome and unwieldy methods.

Capitalization of the railways in Australia is precisely the same as that of the United States railways—\$60,000 a mile. But the standard is far below ours.

The success of the Prussian System has been largely due to the fact that railway administration is in the hands of experts, that employment is permanent, and that the authority of the Government is exercised autocratically.

Government
Operation
Increases
Personnel

The taking over of railways by the State has always meant a large increase in the personnel. This is notably true in Austria, Italy and in France. The fact that the labor unions under State ownership strive to prevent economies is illustrated in the recent experience in South Africa.

The fundamental weakness of Government ownership for the United States lies in the unsuitability of our form of Government to undertake such an enterprise.

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But however undesirable Government ownership may be, it is certain to come quickly if there is a continuation of the same kind of State and Federal legislation which has attended in recent years the exercise of control over railroads in every respect save assuming responsibility for the financial result.

Those seeking to make a bad case for our railroads—those who attempt to show that private enterprise takes no regard for the interests of the public at large—often say that canal transportation is a success in Europe; why not here? Railroad freight charges are much higher in Europe than they are here. In France, which has devoted great attention to its waterways, the State assumes all charges for interest and maintenance, charges no tolls, and even then finds it necessary to compel the railroads to charge 20 per cent. more than the waterways in order that owners of vessels may exist.

European
Freight
Rates

In a letter published quite widely in 1912, Mr. W. M. Acworth, the eminent English economist, asked a question which he said he had publicly asked advocates of internal waterways for a good many years without obtaining an answer: "Can he tell me where to find any independent scientific evidence that an artificial waterway is ever under any circumstances a more economical method of transport than a railway?"

Mr. Acworth believes that there is no authentic case

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of where an important artificial waterway, when both cost of construction and maintenance are considered, offers cheaper transportation than by railway.

But it is said: "Is it not in the public interest to build such a waterway and, at public expense, maintain it for the promotion of trade and prosperity?" The answer is, "If it is felt that a cheaper method of transportation is needed, why not have the State build a railway and charge only the rates necessary to pay operating expenses. Let the real burden fall on the taxpayer."

The Cost of Waterways

If the New York Central Railroad had no interest on its stock and bonds to pay, it could give much lower rates than the reasonable rates it now charges. The State of New York is building a barge canal at a cost of upward of \$100,000,000. The State could build a modern railway between New York and Buffalo for such a sum. A railway could be operated all the year around, and could at least constitute an efficient transportation machine. Shippers would indeed get cheap rates, but taxpayers would pay the bill.

Certain waterways are desirable and necessary. Wherever it is really more economical, water transportation should have all public encouragement. But let us look facts in the face.

The railroads do not fear the competition of waterways. The difficulty of railways is to provide needed

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facilities. But the railway is a heavy taxpayer, and as artificial waterways almost invariably produce a deficit, that deficit must be met out of the public treasury. Our anxiety, therefore, is that as taxpayers we, along with the general public, may be saddled with unnecessary expenses in meeting those deficits.

Investors have supplied large amounts of capital for railway improvements, but it is a fact that these large expenditures in recent years have earned little if anything in return. Unless private capital can be more favorably treated, it cannot be much longer induced to provide the increased tracks, terminals and equipment demanded by the business of the country. Railroads would then be compelled to restrict their programs of improvements and, following that condition, the inevitable result would be a universal demand for nationalization of the railroads, the Government stepping in to do what private capital could no longer be induced to do.

Our country needs development, and the best way to obtain that development is, while taking due measures to protect the best interests of the public at large, to give every inducement to private capital to take the risks and work out the difficulties involved in providing an adequate transportation machine.

IX.

THE NEED FOR FAITH IN MEN

We will all agree that we need better railroads, that we must have them. Delayed trains, the wooden cars, the dirt ballasted roadbeds, the inadequately maintained rights of way—all mean that we need better railroads. So in order to get them we must start on a constructive program, taking what we have, the men that we have, the history that we have, the conditions that are actually before us, and making the most of those conditions for the common good.

No
Grounds
for Sentiment

In dealing with the railroad question there is no occasion for sentiment. The railroad question is a purely business question. There is every reason why we should be just to those who have put their money into railroad properties in the past; but there is no occasion for sentiment with reference to the people who are going to put their money into railroad investments in the future; because certainly the people who are going to put their money into railroads in the future are not going to make their investments on sentimental grounds.

Our problem is, what can we do to induce people who have entire control of their own money to put that money in the future into railroad properties, the benefit of which we may enjoy? The question is not how

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can you get more out of the railroads—more service, or how can you put greater burdens upon them to obtain more value from them. The real question is, How can you co-operate with the railroads in order that the railroad companies may obtain more money from investors to give you the service that you want?

Railroad managers dream of perfect railroads. Every railroad manager would like to have four tracks, steel cars, perfectly ballasted roadbeds, beautiful stations, trains always on time, plenty of freight cars for shippers whenever they want them; but these things cannot be obtained without money. It comes down in every point to *how can you get the money* to give the public the railroads which everybody wants?

The purpose of a railroad is to give good service at fair rates and to earn a dividend on its capital. The owners of a railroad are primarily concerned with the earnings as a whole. The details of charges and service they are anxious to have adjusted to promote the convenience and the prosperity of the community.

So, with your permission I would like to suggest three propositions which I believe are absolutely fundamental in any constructive treatment of this question.

1. *The first proposition is that the public must agree to pay for what it gets.*

We have had a number of illustrations of the failure on the part of the public to agree to that proposition.

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Injustice of
the Parcel
Post

A notable instance is the case of the parcel post. The railroads are quite justly very friendly toward the parcel post. It is a most valuable public service. But the railroads have been absolutely unable to get adequate pay for carrying the parcel post, and very many of the companies have, up to the present time, received practically nothing. For the first six months of the parcel post—although it took a large amount of revenue away from the railroads which they had previously received through the express companies—for that six months the railroads received not one penny for carrying the additional burden. The parcel post has now been in operation for nearly a year and a half and the Government has taken practically no official cognizance of the fact that it has placed a large extra burden upon the railroad companies. That's one illustration.

Another is this: The public, the public in Indiana, if you please, as well as in other States, is constantly demanding better passenger service; you want block signals, you want steel cars, you want your trains on time, you want a full crew law, adding more men to the train, presumably for a good purpose—but undeniably you have on your statute books a law which absolutely restricts the fare which shall be charged for this constantly improved passenger service to two cents a mile.

Suppose that in the city of Indianapolis you had a

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hotel built in the earlier days of the city, designed only to give you rooms containing each a bed and a wash-stand and a dresser; you restricted the price of the rooms in that hotel, we will say, to two dollars a day. Later on by laws which you could enforce you enacted that that hotel should gradually become fireproof; that you should add a bathroom to every room; that you should have elevators; more attendants; that you should buy a drinking cup for every guest; and constantly add to the facilities which the people of that hotel might enjoy. How many people do you suppose you would get to put their money into the financing of that or future hotels if you still restricted the price of rooms to two dollars a day?

The people are inclined to fool themselves. They think that in some way or other they don't pay for these things, but isn't it perfectly obvious that the railroad treasury is absolutely restricted to what it takes in?—it can't pay out any more than it receives. Therefore, if you constantly place burdens on the railroads, arbitrary necessities for expenses, and restrictions of all kinds, taking their money away at one point, isn't it perfectly obvious that the service is bound to be taken away from you at another point? No way has yet been found for subtracting five dollars from four.

The Public
Pays the
Bill

The public is constantly passing laws designed to se-

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cure greater safety, hours of service laws, full crew laws, semi-monthly pay laws, and other measures.

**Every Bill
Must Be
Paid**

It may be very desirable that the public should have these laws. They may want them, but let us not for one moment imagine that these desirable ends haven't got to be paid for by somebody. Mr. Brandeis, in his brief before the Interstate Commerce Commission in the 5 per cent. rate increase, stated that the passenger business was unremunerative; that it was getting more and more unremunerative, while the freight service, curiously enough, on which we are trying to have the rates increased, was becoming more remunerative. It may be desirable and in the public interest that the people that ship the freight should pay the expenses of the people that ride on the trains. The public has that question of policy to decide, but they cannot decide it without giving consideration to the fact that whatever they get must in the long run be paid for by somebody.

2. We must establish some definite policy.

I think you will agree with me that at the present time the American people have no policy whatever toward railroad corporations. Congress fixes the rates that shall be paid the railroads for carrying the mails. The States by arbitrary legislation fix the rate of passenger fares, and some States fix the freight

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rates. The Interstate Commerce Commission regulates interstate rates of all kinds.

Public opinion practically compels railroad managements to submit questions of labor to arbitration; and yet commissions, State and interstate, settle the question of rates out of which the award of these arbitrations must be paid; and these commissions are at all times quite at liberty to say that they consider the awards in arbitrations unwarranted by the conditions.

The States are constantly making demands upon the railroads without regard to who is to pay for them. Two States do not agree with each other, and the States are frequently at discord with the Interstate Commerce Commission.

Conflicting
Agencies
at Work

During the consideration of the 5 per cent. rate increase, the Interstate Commerce Commission gave out an opinion at Washington to the effect that the railroads had been wasting a large amount of money paying out allowances to industrial railroads throughout the United States. The Interstate Commission said, in effect, "The railroads must come to us with clean hands. They can save \$15,000,000 a year if they withdraw these allowances." The railroads took the Commission at its word and filed tariffs withdrawing these allowances, not only in the few specific cases that the Commission considered, but upon every industrial track in the territory. With what result?

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Several State Commissions intervened and said that must not happen within the State over which they had jurisdiction. And the Interstate Commerce Commission itself saw such difficulties in the situation that it withdrew the tariffs filed at its own suggestion on other companies than those which it had already specifically considered.

The State of New Jersey has recently passed a law placing the entire cost of removal of grade crossings on the railroads. If we should remove all of the grade crossings on the Pennsylvania Railroad in the State of New Jersey it would cost us about \$60,000,-000. If the State of New Jersey should absolutely enforce its own law, and its own courts should uphold its enforcement, we would have no money whatever to remove the grade crossings in other States for a long time to come.

Unwise Orders

The Commission of the State of Indiana has recently ordered the Panhandle Railroad to put automatic block signals on a greater part of its lines—its main lines. That, of course, has to be done. But it has to be done by our putting into that effort money which ought to be divided over the line in Ohio, where the traffic is very much heavier.

This sort of thing is going on constantly. Railroads try to make an improvement in some city: in the city of Cleveland, for instance, we want to build a new sta-

THE NEED FOR FAITH IN MEN

tion and to make various improvements there. The city of Cleveland takes advantage of the opportunity to try and force us to improve the city, and thus relieve the taxpayers of the city of burdens which they themselves should bear.

Every time the railroads want to make some monumental improvement in a large city they find themselves faced with demands for municipal improvements that have no relation whatever to the activity of that company as a common carrier. We have had a proposition before the city of Baltimore for the last year, and we are absolutely unable to agree, for the reason that we want to build up a railroad, and they want to build up the city of Baltimore without proper consideration of the other obligations of the railroad.

Differences
with Cities

Take the question of taxation. You have no policy. Different States apply their taxation on different bases. In the State of New Jersey the railroads pay 46 per cent. of all the expenses of the State government. Every State is applying its taxation in different ways.

So I come back to the proposition that out of all this conflict, this medley of law and regulations—beneficial, desirable, if you please, I am quite willing to concede—we certainly have no policy; nothing that will enable a man investing his money or desiring to invest his money in railroad properties; nothing that will

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enable him to know what he can depend upon or what he may expect in the future.

"Safety First" for Investments

We have heard a great deal about safety in railroad-ing, but I would like to suggest to you that in the midst of this puzzle which faces investors, they, too, concern themselves upon the question of "safety first." Capital is beginning to think a good deal about "safety first"; and when you realize that out of a great amount of investment of capital in railroads in this country, about one billion dollars of it has been sup-plied from Europe, you must realize the anxiety which prevails on the part of a large number of people who have invested their own money in American railroad enterprises.

3. I would like to suggest one other proposition, which, I hope you will agree with me, is constructive—and I will deal with that very briefly, and that is this: *We must restore the faith of the public in the good intentions of earnest men who happen to be successful.*

It doesn't seem to me that experience—hard-earned and intelligent experience—in the competent management of a railroad company should indefinitely dis-qualify a man for membership on a railroad commis-sion. Some day we will have to come to the view that experience, earnest, able and faithful experience, in the management of a property, qualifies a man for giving

THE NEED FOR FAITH IN MEN

the public advice as to how to regulate that sort of an undertaking.

We have in this country the greatest railroad system in the world, paying the highest wages, paying the highest taxes compared to the amount of investment. With all of its faults, could such a system have been developed if the railroad managements of the country hadn't been, as a rule, absolutely sound? Would it have been possible to have built up such a gigantic monument of enterprise and ability and efficiency unless the men who run the railroad companies were fundamentally honest?

We must come to see that railroad men are just as honest, just as faithful, as the ordinary lot of men in other lines of activity. The public is beginning to believe that we must almost expect in a railroad management a percentage of purity which wouldn't be expected in any other line of business in the world. Let's concede that we are not all white sheep; there will always be black sheep. Have the banks always been absolutely clean and pure? Don't we find rottenness in banking in the most unexpected places? And won't we continue to find it so long as human nature is frail? Let us concede that the railroad men are just like other men, and let us come once more to believe that the railroad man who does his duty and who serves the public should receive public approbation.

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Maxims of
Sound
Regulation

Let us pin our faith to the enterprise of the individual.

Let us abandon belief in the value of legislation in detail concerning the operations of a complex industry requiring the highest ability of trained experts.

Let us see to it that as regulators we have men striving to serve the public and not to promote private political ambitions; let all railroad commissioners work with the railroads and not against them.

But under and above these policies, let us restore our belief in the sincerity of earnest men; abandon the thought that material success should be an object of suspicion; and face the inexorable law that we can reap only as we sow, and that in the long run we must pay for what we get.

X.

THE PEOPLE'S PART IN SOLVING THE RAILROAD PROBLEM

You have heard a great deal of complaint on the part of railroad officers of the way the public, through commissions, was treating the railroads. I wonder if you always realized who and what it was that was being ill treated. It would be difficult to ill treat a string of cars, rails or bridges. Who is it or what is it that is being ill treated when the railroads are not being treated justly? What is the railroad? What is the essence of the railroad?

There are in this country some 10,000,000 people who have accounts in savings banks. These people, through their savings banks, have invested nearly \$800,000,000 in railroad securities.

Who Owns
the Rail-
roads?

There are 30,000,000 policies issued by the life insurance companies of this country. Against those policies and with the money which you have paid in life insurance premiums these companies, on behalf of these 30,000,000 policy holders, have invested about \$1,500,000,000 in railroad securities. Here then, allowing for a good many duplications, are tens of millions of people from the lowest to the highest ranks who indirectly own and have a very direct interest in stock or bonds in American railroads.

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Europe, relying upon the good faith of the American people, relying upon the inducements which we held out to come and develop the resources of our country, has invested at least \$4,000,000,000 in American railroad securities.

Here, then, are three elements of investors—savings bank depositors, policy holders in insurance companies and investors in Europe who own altogether one-half of the entire amount of capital invested in American railroads. This eliminates all reference to our own people who, in their private capacity, have invested in railroad securities.

The
Essence
of the
Railroad

The railroad in its essence is the men and women who supplied the money with which to build it. It is also the men who are attempting to run and to operate the railroad; of them there are some 2,000,000 in the United States.

The public is the user of the railroad, and, when you analyze the whole situation, you must see that the man who runs the railroad is simply acting on behalf of this public to get from the investor the money with which to build and to provide the railroad plant. To make that perfectly concrete, take the amount of stock in the Pennsylvania Railroad owned by all of its directors, all of its officers and all of its employes, and you will find that this entire category of men own less than 5 per cent. of the total.

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In other words, the men who run the Pennsylvania Railroad are trustees; men who live on their salaries, who act for the stockholders in providing a service to the public. They are not exploiting their own interests, they are not trying to gouge either the employes by low wages or the public by high rates and inferior service. They are working as good American citizens to get the money with which to give a railroad service to other good American citizens, and nothing less than that. They are working to promote the material welfare of the people of this country.

The relationship, therefore, of the management of a railroad with both the people who supply the money and the people who get the benefit of that money through the use of it should in the very essence of things be a co-operative relationship.

Most American men are reasonable. They certainly mean to be when they know the facts. They are, I think, most of them fair and quite prepared to pay a reasonable price for the service which the railroads render, but they have a clearly defined indisposition to pay dividends on watered stock.

I hold no brief for railroads with watered stock. The Pennsylvania Railroad fortunately has none, but I do say that this is a practical question. Take property like the Wabash, which is in a very bad way financially and which has doubtless issued securities im-

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The
Problem of
Watered
Stock

prudently. But what is the question that the people along the lines of the Wabash Railroad must think about to-day? They want service, they want double tracks, they want good terminals, they want steel cars. Those things cannot be obtained without real hard money. The man who issued the watered stock is possibly in his grave. His heirs may have distributed that watered stock all over the world. How are you going to get that perfect service by simply saying that that poor man in his grave shall be punished?

You remember that in the time of Henry VIII a regular court trial was carried on for the purpose of convicting the ghost of poor old Thomas à Becket for some alleged crime committed four hundred years ago. We all smile at Henry VIII for doing such a thing. You can't handle practical matters that way. I don't believe that the watered stock really amounts to very much. We are thinking in this country a great deal about punishing the past mistakes of railroad financiers, and many of us consider this so paramount that we fail to consider the very practical question that every railroad manager has before him: How are we going to get the money to give the people the service they ought to have?

It was a glorious thing, no doubt, for Samson to pull down the pillars of the temple. There were a good many bad people in the temple, but what good did it do

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Samson? And a great many of us who are so bent on punishing the past evils of railroad financiers are liable, if we are not careful, to commit the Samsonian act.

I was in Washington a few nights ago and spent the evening with one of the President's Cabinet. In the course of our conversation he made this remark:

"Mr. Lee, I think that the month of December will show that the exports of the United States to Europe will exceed the imports by about \$100,000,000."

He continued: "There is no limit to the expansion of our commerce at the present time except the limitations imposed by the absence of ships. All we need is ships."

Limitations
on Our
Trade

Now, there was a time when the merchant marine of the United States could take its place and compete with the merchant marine of the other countries of the world, but it has so come about that the American merchant marine to-day is almost negligible. I heard it stated a few years ago that the only American ships that passed through the Suez Canal were private yachts and men of war.

That was a serious situation. We did not think much about it until this war broke out, because Europe supplied the ships and took good American money for our use of those ships to supply the necessities of our commerce. How did it come about that the Ameri-

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can merchant marine was practically driven from the seas?

It came about in this way: The American Congress passed a series of laws imposing burdens in the cost of the operation of ships flying the American flag, which made it impossible for capital invested in American ships to earn a proper return.

The result was that our ships faded from the ocean, and at a time like this, when the great opportunities for the expansion of our commerce open up, we have not the ships to carry it.

A Possible Future Emergency

Now, suppose that in some near period of the future we should be faced with a great trade boom at home and we should suddenly find ourselves saying to one another, "There is no limit to the possible expansion of our business at the present time; all that we need is railroads."

The fact is that the course of action of this country, all unwittingly no doubt, but effectively, during the past eight or ten years has been to act toward the railroad interests of this country in a precisely similar manner to that with which we treated our shipping interests in the past, and which resulted in practically driving American merchant ships from the ocean.

We have been imposing all kinds of increasing costs without making adequate provision for paying the bill, and without taking account of the fact that though the

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railroad was here to-day and we could take out of it all there was there so long as it was still there, through that policy we could not add one dollar to the additional investment of railroad property.

We have great terminals that are not adequate for the conditions as they exist to-day, and we have a great undeveloped country. We must take account of the obligations we are under in our own interest to make the operation of railroads profitable.

We need in this country to adopt a policy of conservation with reference to the railroads.

You in Williamsport, of course, know what conservation means. You know that a few years ago this great territory of yours was covered with timber. You know that these lands were denuded without any thought for the future. You felt that the resources of the country were so abundant, that there was such a great extent of forest land all over the United States, that the interests of the country did not suffer if this lumber was cut and no provisions made for reforestation. That was the feeling the American people had about most of their natural resources. They felt it was not necessary to take account of the morrow. But we are beginning to see now that we must think of these things, and conservation is the popular creed of the hour.

Railroad
Conserva-
tion
Imperative

The American people have been treating the railroads exactly in line with the way they have been

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denuding their timber lands and making no plans for reforestation. They have imposed on the railroads all kinds of obligations; they have expected all sorts of things from them and they have been providing no means of securing additional revenues, making no plans to pay the bill. We have been taking out of the railroad what it had in its treasury in various forms, and we have been making no plans to replace what ought to be there to meet the necessities of the present and the future.

Invariable Results of Arbitra- tions

American public opinion has practically forced the railroads to agree within the past few years to arbitration of various labor difficulties. These arbitrations have invariably resulted in increased expenses to the railroads. It must be obvious that a railroad manager delights in paying his employes the highest wage he can. It costs him no more, but makes the employes very happy, but these arbitration boards who so glibly award increased wages to employes have no power to provide the railroads with the necessary money to pay the bill.

Various mandatory laws have been passed compelling the adoption of certain safety appliances, desirable, no doubt, but costing money, compelling an arbitrary number of men on train crews, regulating the hours of employment of the men, regulating the frequency with which wages shall be paid, regulating the railroads in

PEOPLE'S PART IN RAILROAD PROBLEM

all sorts of ways. These are good things, perhaps, but certainly if the public wants them railroad managers have no objections, providing the money is there with which to pay the bill.

Various communities have assessed increased taxes on the railroads, taxes increasing all out of proportion to the augmentation in the companies' revenues, yet making no provision whatever to pay the bill.

When railroads wish to make improvements in various cities, improvements necessary for the proper development of the transportation service, communities immediately feel that here is an inexhaustible source of money of which they may as well avail themselves and take advantage of the situation to provide increased stations or increased facilities.

You have been denuding your railroad treasuries of their forests, if you please, and you have been doing no reforestation, to put the money there with which to take care of the requirements of the future and the demands of future investors.

Denuding
Railroad
Treasuries

I want to show you in a few figures just how this thing is worked out.

A great many people feel that a lot of this railroad talk of trouble is all "hot air," that it doesn't mean much. I saw an article in the Philadelphia *Record* on Sunday by a professor of economics in the University of Pennsylvania pointing out that railroad dividends

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were continuing to be paid and asking why the people should have to pay increased passenger rates. They fail to see this: that when railroad earnings begin to go down the railroad manager must first pay his bills for wages and taxes, then he must take care of his fixed charges, and then of his stockholders. After that there is the surplus. The surplus has been that small margin out of which the railroads have been able in the past to pay what I may call a dividend to the public in the form of expenditures for removing grade crossings, improving passenger stations, if you like, and doing other things which in themselves added nothing to the revenues of the companies.

What has really been happening in the past few years to the prosperous roads has been that this dividend to the public has, through the public's own action, been steadily declining and the ability of the railroads to make such improvements and to do such things has been steadily diminished.

The railroads as far back as 1910 saw the way things were going. They were not hopelessly in trouble then, but they felt that the tendency was wrong. Their costs were constantly going up and their revenues were not increasing in proportion. They asked the Interstate Commerce Commission for an increase in rates. That request was denied.

The situation became acute in 1913 and they again

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went to the Commission. They were able to show that during the three years ended with the previous year, June 30, 1913, though the railroads had put some \$660,000,000 in their property they had actually earned less by \$17,000,000 than they had the three years before or prior to the making of that large investment. But in spite of that showing the Commission declined the proposition again.

Then the war suddenly came on us, and simultaneously with the war the railroads were able to compile the figures for the year ending June 30, 1914, which they had not been able to present to the Commission. These figures showed for the year ended June 30, 1914: For the four previous years the thirty-five railroad systems in this territory—that is, between the Mississippi River and north of the Ohio and Potomac Rivers—had put about \$900,000,000 in good sound money into new improvements and increased facilities for the benefit of the public, yet during the year ending June 30, 1914, these same companies earned in net revenues \$90,000,000 less than they did in 1910 before the \$900,000,000 had been spent.

That was a situation which no business could continue to take care of long, and but for the fact that many years ago the American railroad situation had been made so sound before this devitalizing tendency started to work, it would have been impossible for these

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railroads in this territory to have met this situation without bankruptcy.

But the light is beginning to dawn. We are beginning to see that we must think of conservation with reference to our railroads as well as with reference to our forest lands, our streams and our other national resources.

The Tide Turning

During the past four months four distinct evidences have developed in this country which show the turning of the tide and that the American people are beginning to appreciate this necessity for conservation.

The first of these evidences was a letter which President Wilson wrote to a committee of railroad executives who visited him in September, when the President pointed out that the railroad situation should have sympathetic treatment, because the railroads represented "the one common interest of our whole industrial life." That was a big thing for our President to say, and it had tremendous moral effect.

A short time ago the second great event occurred: A committee of Congress, representing both parties, reported to Congress that in its judgment the railroads were underpaid for carrying the mails. It has been a contention of the railroads for a long time that they were not being fairly treated by the Government in their compensation for carrying the mails. Yet when the parcel post—a very desirable enterprise—was

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instituted, no provision was made for compensating the railroads for taking on this extra burden. The railroads claimed before the parcel post was instituted they were underpaid for carrying the mails at least \$15,000,000 a year.

Last year the Postmaster General, having promised the railroads in various conferences, public and private, that he would see to it that they got justice—after having sanctioned a bill again paying no attention to the parcel post at all, except as might be affected by the annual weighing, and giving no remuneration to those railroads which ought to have it—this same Postmaster General sent in the recommendation that the increase last year be not to exceed one-half of 1 per cent.

That would have meant that out of an increase in the postal revenues equal to between thirty and forty million dollars the Postmaster General proposed to give the railroads, for carrying that increased burden, perhaps two hundred and fifty thousand dollars! Government Injustice

Now, this committee, representing both houses of Congress, and of which Senator Jonathan Bourne—the father of the parcel post—was chairman, has reported that the railroads were underpaid between three and five million dollars for carrying the mails. In spite of that fact we read this astounding statement in the opening passage of the annual report of the

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